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WEDNESDAY, SEPT. 4, 1889.

LEADING TOPICS THIS WEEK.

Alleged opium smuggling on Staten Island.
White lead rumors.
The alkali trade outlook.
Patents affecting petroleum.
The proposed flint glass combination.
Is indigo holding its own?
A substitute for gambier.
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WEEKLY REVIEW.

The money market has been active during the past week. The rate for call loans has ranged from 6% to 2% and closes at 2%. Time loans rule 4½@5 for 30 to 60 days and 5% for 4 months.

The supply of commercial paper is good and the demand is improving. We quote 60 to 90 days indorsed bills receivable at 5@5½, first class four months commission house names at 5½@6 and good, single names (jobbers) having four to six months to run at 6@7. Following are the rates of exchange on New York: Savannah buying ¼ discount, selling ⅛ discount@par, Charleston, buying par, selling par@⅛, premium. New Orleans commercial, par; bank at $1 per $1,000 premium; St. Louis, 50c per $1,000 discount; Chicago, par@25c per $1,000 discount. Sterling exchange is steady.

Sterling, 60 days, nominal	$4	84½@
sight, nominal	4	88½@
60 days, actual	4	83¾@4 84
sight, actual	4	87½@4 87¾
Cable transfers	4	88 @4 88¼
Commercial, 60 days	4	82½@4 82¾
Paris 60 days	5	21¼@5 20⅝
sight	5	18⅝@5 18⅛
com., 60 days	5	23⅛@5 22½
com., sight	5	20⅝@5 20
Antwerp, 60 days	5	23¾@5 23⅛
Swiss, 60 days	5	21⅛@5 21¼
sight	5	19⅝@5 18¾
Reich marks (4) 60 days		94⅝@94¾
(4) sight		95⅛@95¼
(4) nom., 60 days		94¼@94⅜
(4) com., sight		94¾@94⅞
Guilders, 60 days		40 1-16@40⅛
sight		40¼@40 5-16
com., 60 days		39⅞@39 15-16
com., sight		40 1-16@40⅛
Copenhagen, Stockholm and Christiana, Krona, 60 days		20⅝@20⅞
sight		97 @97⅛

RUMORS OF OPIUM SMUGGLING.

The alleged finding of a lot of smuggled opium on Staten Island startled the customs authorities last week, but it turns out that the story was from beginning to end a hoax at which a number of sensational daily papers readily bit. Although no direct effort is made to connect the drug trade of this city with an attempt to cheat the government, by inference it might appear that such operations are carried on with their knowledge if not connivance. A little over a year ago the wholesale druggists of New York were annoyed by an attempt of the daily papers to show that they were engaged in smuggling opium into Cuba, and the result was that for a time the Cuban trade in that commodity was driven from this market. This latest story looks like a renewal of the attempt to bring the drug trade into disrepute, and is the result of either maliciousness or idiocy.

WHITE LEAD RUMORS.

About two months ago a story was circulated through the medium of the daily press, relating to the proposed incorporation of a stock company by a number of leading color makers and jobbers, for the purpose of manufacturing white lead and selling it in competition with the National Lead Trust. It was stated that the people interested in this alleged enterprise were induced to embark in it because there was no profit in white lead for the middlemen, on account of the arbitrary prices fixed by the Trust, and the stringent rules governing the sale of its product. At the time this story was going the rounds, the REPORTER conclusively showed that there was no foundation for it, except the indefinite talk sometimes indulged in by large color manufacturers, of adding a department to their factories for the production of white lead and the oxides for their individual consumption in the manufacture of colors of which these lead salts are the base.

So far as establishing or attempting to establish works for the manufacture of white lead on a large scale with a view to competing for outside business with the Trust, it was shown that the obstacles to be surmounted would be altogether too great, and that no jobber who had any practical experience would be disposed to look favorably upon such a project, much less invest capital and lend his influence to further an undertaking of that sort. All this, however, does not dispose of the feeling of dissatisfaction which finds lodgement in the minds of certain jobbers, and which always exists when the sale of white lead is controlled by fixed rules as at present. When no such obligation is laid upon these jobbers they are apparently happy and satisfied, even though it may be evident that they are making no money on the white lead they are handling. Such jobbers appear to be opposed on principle to any attempt of the corroders to establish profitable prices, and as there is no doubt that at the present quotations there is a very good margin of profit for the manufacturers, the disgruntled jobber may be expected to enter his protest. Herein probably we find the explanation of such stories as those which were current a while ago, and are revived to-day in a more positive form.

We are informed by rumor that the combination of paint jobbers which erst-while was hinted at as in process of incubation, is now a full fledged organization prepared to do battle with the corroders' institution. There is no foundation for such statements, which are either the natural outcome of the dissatisfaction above referred to or are circulated by stock-jobbers with a view to influencing the market for lead trust certificates. No apparent necessity exists at the present time for a combination of this character, and, if there did, none of the jobbers with the capital and experience necessary to organize such a movement would for a moment be likely to entertain a serious thought of entering it, while the money, ability and enterprise represented by the National Lead Trust stand opposed to the scheme. We do not, however, say that such a plan may not eventually be put into operation should circumstances warrant it, or that it has not been actively entertained by certain middlemen, but in the one case, as already stated, the necessity does not exist, and in the other there is no hope at present of a successful organization.

THE ALKALI TRADE OUTLOOK.

There is a noticeable improvement in the tone of the market for heavy chemicals which is due to two causes, one, however, dependent upon the other. The rearrangement of production on the basis of salt decomposition which was proposed several months ago, in the face of strong opposition, now seems to be within the range of possibilities. One by one the manufacturers who opposed this method of restricting the output have been won over to the plan and at the present time but one producer refuses to be governed by it. His opposition is all that prevents the consummation of the scheme, but strong hopes are now entertained by the others that he can be induced to complete the circle. Certain concessions will have to be made to him, it is said, in order to secure his concurrence, but the committee that was appointed for that purpose will, it is expected, be able to report at the meeting of the alkali makers to be held early this month, that their labors have terminated as generally desired.

Whatever may be the result of the committees work, the manufacturers we are informed are determined to no longer delay the practical trial of their plan. Therefore, if the co-operation of this outside producer is not secured the others will proceed at the approaching meeting to carry the proposed restrictive measure into operation, and no doubt of the result seems to be entertained by them. This feeling of confidence in their ability to place the business upon a substantial foundation by the means indicated, has been communicated by the manufacturers to the general trade abroad, it would seem, and its influence is beginning to be felt in this market also.

American consumers of alkalies have hitherto felt little confidence in the attempt of the manufacturers to restore the prosperous conditions so long absent in this line of trade. The repeated failure of similar efforts has created a feeling of skepticism that is hard to overcome and the present movement has hitherto had little support from this side. Now, however, the American trade seems to have imbibed some of the confidence that is entertained abroad, and latterly have shown their change of mind by increasing interest in contracts for future delivery. The demand for goods thus created while not of an actively speculative character is sufficiently marked to materially improve the tone of this market.

There is good reason for this display of increased interest on the part of buyers. If the manufacturers' plan is put into operation its effect would be to restrict the production to the actual requirements of consumption, as no loop-holes would be left for evasions of its object, such as has caused the defeat of previous attempts to regulate the output. With the current production limited to the needs of consumption an advance in prices, the result aimed at, would be sure to follow, and it may safely be said that while the combination lasts, which would probably be for many years, alkali and kindred products will never be sold at anything like the low prices now current. Will the manufacturers be able to put their plan into successful operation? is the question upon which all this now depends.

THE PROPOSED FLINT GLASS COMBINATION.

That the leading spirits in the proposed plan for the unification of the flint glass manufacturing interests are not to be turned from their objective point by what to others might be insurmountable obstacles, is evident from the reports that reach us from time to time regarding their work. It does not appear that they have entirely abandoned their original plans, which, as stated in our last, involve difficulties that can only be removed by concessions that are not likely to be made by the parties from whom they should come; but an energetic and able committee is at work gathering data from which a plan may be formulated that will harmonize conflicting interests, and pave the way for the final incorporation of a stock company on the lines originally drawn.

There is certainly a marked unanimity of opinion among flint glass manufacturers in favor of the proposed amalgamation, though individual producers present objections and obstacles which are difficult to surmount. However, similar impediments to success have been met and overcome by other now prosperous trade combinations, and there is no reason to doubt the ability of the flint glass manufacturers to succeed in their undertaking if they possess the necessary determination and patience, attributes with which their committee of organization appears to be liberally endowed.

PATENTS AFFECTING PETROLEUM.

The petroleum industry in every branch has, from the time of the important fluid first becoming known to commerce, been both assisted and hampered by patents. The producer has been compelled to pay tribute to claimants for original design or invention on most of the essentials to the successful boring of deep holes, and the refiner has encountered similar tax levying devices which tended only to lessen his profits. That some of the patented devices were meritorious, and that the patentees were deserving of fair compensation, goes without saying; but every suggestion of improvement, novel or otherwise, has been seized upon to secure a patent and through it the producer or refiner has been made to pay royalty. This has generally been paid rather than resort to expensive suits at law, notwithstanding that the producers or refiners have been convinced that the patent did not possess patentable novelty or was a mere adaptation. The producers have doubtless encountered more of this class of patents than the refiners, and some of the devices or "improvements" for the use of which they have been compelled to pay royalty have been a disgrace to the patent office, which has given official sanction to the claims of the "originators" of these devices.

The United States Circuit Court has recently rendered a decision, denying an injunction asked for by the owners of a patent which was granted on the mode of lining the inside of petroleum barrels with glue whose manufacture had not been completed by drying to make the ordinary commercial article. This is one of the instances where the Patent Office has issued letters patent on a mere suggestion that would occur to everyone having occasion to use sufficiently large quantities of glue to warrant them in engaging in its manufacture, the use of the glue in its liquid or commercially unfinished condition, being a saving of an important part of the expense of

manufacture. As the decision in this case is published in full on another page we refer the reader thereto for a fuller review. Another case recently decided was the claim of the patentees to exclusive right to use a certain packing for oil wells. The claim in this case was on a reissue which was an undue expansion of the original claim of the patent. The decisions in these cases will encourage producers to reject the claims of those who have no valid foundation for protection or exclusive rights, notwithstanding they hold letters patent duly issued by the Patent Office at Washington. The owners of these and similar patents were doubt less sincere in their belief that they were entitled to protection and a profit on their "inventions," but the laxity of the Patent Office officials who granted the patents proves them to have been incompetent to discharge the duties of the important trust reposed in them. This indiscriminate granting of patents to almost every applicant has brought the United States Patent Office into disrepute and made the patents it has issued practically valueless until fortified by a decision by the courts. It has become a truism that an inventor's troubles begin when he receives his patent.

IS INDIGO HOLDING ITS OWN?

The statement was made during the past week that no substitute has yet been discovered that can compete with indigo for beauty and permanency of color. Several members of the dyestuff trade who were spoken to upon the subject took exceptions to the statement and said that its author could not be acquainted with the progress of events in the trade. We were assured by the same parties that alizarine blue is a strong competitor and that it commands a larger sale, so far as they are concerned, than indigo preparations, although selling at the relatively high price of thirty-five cents per pound and only introduced about three years ago. The alizarine is represented to give as fast a color and better satisfaction than indigo, besides going much further, thus reducing the bulk of goods handled and equalizing the cost. Aniline colors are not said to be substituting indigo.

To arrive at a definite understanding of the matter it is necessary to consult the import statistics which are to be accepted as a true index of the movement in the United States. The quantity of crude indigo imported during the past five fiscal years has been as follows, according to the official reports from Washington:

Years.	Pounds.
1885	3,035,934
1886	2,961,453
1887	3,466,665
1888	3,118,133
1889	3,550,756

It will be seen that the heaviest imports were during the present year on account of the comparatively small amount brought here during 1888, and the figures show that the volume of business which was increased in 1887, is steadily maintained.

The indigo preparations are more of an uncertain character, as is evidenced by the following statement of imports for four years, the report for the last fiscal year not having come to hand:

	1888.	1887.	1886.	1885.
Carmine, lbs.	29,380	29,168	19,407	14,211
Extract, lbs.	880,954	1,528,632	1,974,255	1,378,636
Substitute, val.	$532	$2,681	....	....
Auxilliary, val.	$45,517	$49,756	49,228	....

It will be noticed that indigo carmine is the only article in the list that is on the increase, the movement of the other three products being gradually restricted. The article known as indigo substitute, may not properly belong to the indigo series, but it is classified under that head by the Treasury Department; its usefulness, however, seems to be on the wane. As the extract and auxiliary only show a decline while carmine is rapidly growing in popular favor, and crude indigo is holding its own, the progress of events cannot be said to be operating against that ancient dyeing material.

A SUBSTITUTE FOR GAMBIER.

The dyestuff trade will no doubt be interested in the description of a new tanning material to be found on another page of this issue. A chemist has made a report on the result of a series of analyses of a root found in Texas and New Mexico and which he calls "canaigre." His conclusions are that it gives promise of supplanting gambier, for the reason that the fresh root contains thirty-two per cent. of tannin, while extracts have been prepared which had from forty to sixty per cent. of tannin, and experiments by tanners made it acceptable as a substitute for gambier. Supplies are said to be inexhaustible and another item in its favor is the statement that the dried and ground root can be delivered in any part of the United States at a price not exceeding three cents per pound.

It seems strange that the article has not been introduced to the trade before this, if its properties are so valuable. The "canaigre" root was brought to public attention twenty years ago, it has frequently been examined by experts in the agricultural department and was put on exhibition at the New Orleans Exposition in 1886, but somehow its promotors have not made progress in getting the trade to handle it. If the agricultural department had considered the discovery of any value, it would have issued a bulletin on the result of investigations and brought the tanning material to the attention of the public by other means, but we have failed to see any official report from that source, or the manifestation of any interest in the subject even in western Texas where the root is said to be gathered in liberal quantities. It is possible that the earth contains such a vegetable material to supplant gambier, but its merits will have to be made known to consumers, and when a demand is created then the middlemen will find it necessary to lend their assistance. A meritorious article will soon find its way into consumption and gain rapidly on its older competitors, but it is very unsatisfactory work to advance the interests of a commercial product lacking in quality. The slow progress made by the new candidate for public favor is therefore cause for looking upon its claims with suspicion.

THE FERTILIZER DISCUSSION.

By referring to our correspondence column and to an interview on another page, it will be seen that considerable interest is manifested in the fertilizer controversy now in progress in Georgia, where the credit system is abused. The two bills now pending in the legislature of that State are not popular and they may be defeated, but the fertilizer manufacturers ought to feel encouraged over the prospect of a change in the manner of doing business, as the discussion has brought out the state of public feeling and it may end in the cash system being substituted for the loose methods now in vogue.

In the absence of a national organization for concerted action, manufacturers of commercial fertilizers have to meet all adverse legislation and trade disputes single-handed. They devote considerable time in watching the course of events in different States; the work of the experiment stations is also scrutinized carefully, and not a little annoyance is caused by new Treasury rulings which have to be fought in the courts. These matters could be attended to by an association embracing all the manufacturers, and at much less expenditure of time and money. An expression of opinion on a proposed law or other matters affecting the trade, would have more influence coming from an organized body than from an individual firm. The fertilizer exchange of this city has accomplished some good results in local affairs, but a much broader scope of co-operation is necessary to undertake greater responsibilities. The trade in commercial fertilizers is rapidly on the increase and if the industry is to be protected from menacing evils, concerted action is the only way to do it.

A SAMPLE OF TURPENTINE.

A wholesale druggist in Missouri sends the REPORTER a four-ounce vial of turpentine accompanied by the request that it be tested with the view of ascertaining if it contains any foreign matter. The turpentine was doubtless purchased for medicinal purposes and for that reason our correspondent desires to be certain what he is handling. He did not contract to buy wood spirits, benzine or any other substance known to be used in turpentine mixtures, hence is anxious to be informed as to the nature of the sample. As the buyer's suspicions had been aroused by some means not made known to the REPORTER, it was taken for granted that the turpentine had been put through a process of sophistication and that it devolved upon us to determine the percentage of foreign matter. Unfortunately the sample was too small to give definite results, not even the specific gravity being obtainable. The odor and color were the only points of comparison, and these were so similar to pure turpentine that experts pronounced the sample genuine.

The suspected article was taken through the trade last week and while one or two persons entertained doubts about it, the other gentlemen interviewed considered the sample all right. Considerable interest was manifested in the matter and the unanimous opinion seemed to be that if it is not pure turpentine, it is the best mixture ever seen in this market as there would be no difficulty in selling it as the prime article, thus proving a gold mine to the mixer who has made detection so difficult. Still there are reasonable doubts on that score and our correspondent should not be hasty in arriving at conclusions until his investigations have been pursued further.

PROPOSED BANKRUPTCY LAW.

The United States Register in Bankruptcy has received a copy of a bill to be presented at the next session of Congress providing for a uniform system of bankruptcy proceedings in the United States. It is a complete act embodying the views of the commercial classes, and is intended to take the place of all pending bills. The clause that was fatal to the Lowell bill, that which made failure to settle an open account of thirty days' standing an act of bankruptcy, is changed so as to extend the time to sixty days after a written demand personally served on a debtor, thus giving him ample notice and time to cover his shorts by some kind of an accommodation. Another feature embodied in the proposed bill is that the death of a respondent shall not abate bankruptcy proceedings, as heretofore. The REPORTER has frequently advocated the passage of a uniform bankruptcy law and we are glad to see that an earnest effort is at last being made to bring about the enactment of a law that will prove just alike to debtor ad creditor. The laxity, and in some cases unfairness, of State laws to foreign creditors is notorious. This condition of affairs has proven disadvantageous to honest buyers as well as to merchants at the commercial centers. Merchants have hesitated in giving credit to deserving applicants because of the risks they encountered. Laws in some of the States were made apparently with the view of shielding the local debtor, discriminating against the creditor in another State. A uniform bankruptcy law will place all merchants on the same footing, be they located in Maine or Texas, and it can work no hardship to the honest dealer, while it tends to increase confidence in the integrity of the buyer. Of the sharps and rogues which are so numerous it is needless to speak, and if the law will do no more than materially restrict their operations it should receive the hearty support of all fair minded men.

TROUBLE ABOUT DELIVERING GOODS.

Last week the agents for a certain line of vessels notified several importers that merchandise belonging to them had arrived at Communipaw on the New Jersey side of the Hudson river. The consignees desired to avoid the trouble and expense of trucking from the Communipaw dock, and as the transportation company should have delivered the goods on the New York side, the importers held a consultation as to the best course to pursue. The consultation did not amount to anything as the majority concluded to move their own goods rather than have any difficulty with the agents of the vessel. There was one firm, however, who concluded to test the law again after being successful on many previous occasions, and when the agents sent word to have the goods removed within a specified time or they would be stored at the expense of the importers, the latter replied that unless the merchandise was put on the New York side within a certain time, they would take possession of the vessel. That was sufficient to bring about a satisfactory result as the goods were not only transported across the river but immediately taken to the warehouse of the importing firm without any further complaint, while all the other parties having goods on the same vessel were compelled to pay the expense of cartage from New Jersey.

This case again illustrates the arguments advanced from time to time in these columns to make importers realize that they have rights which transportation companies are legally bound to respect. The display of an aggressive spirit at the proper time when well backed by judicial decisions, will accomplish wonders. Steamship agents are well acquainted with the law and they are not going into court to be defeated when fully realizing that the contestants are determined to fight the issue. The only way to get justice outside of court is to put on a bold front and demand your rights.

TRADE ITEMS.

The Swansborough, N. C. Co-operative Manufacturing Co. is being organized for the manufacture of fertilizers.

The spice factory of Messrs. Coburn & Co. in New Haven was damaged to the extent of $5,000 by fire last Friday.

L. H. Bell, of Louisville, Ky., has purchased 75 acres of land in Ripley, Tenn., containing yellow ochre and will develop.

Messrs. Rush, Hale, Allen and others have organized a company in Jasper, Ark., to develop a lead and zinc mine on Honson creek.

The bark J. C. Williams, from Grand Connetable Island for Philadelphia, with a cargo of phosphate rock, has sunk eighty miles east of Barbadoes.

An Italian labor contractor of New York is completing arrangements to send 400 Italian laborers to work in the phosphate rock fields of Charleston, S. C.

The Columbia, S. C. Phosphate Co., has been organized for the manufacture of fertilizers, and commenced the erection of their factory buildings, to cost $18,000.

According to the terms of the Grace contract which has been ratified by the Peruvian Congress, the bondholders are permitted to export 2,000,000 tons of guano.

Mr. Peter Van Schaack, the well known Chicago druggist, has returned home after a three weeks' sojourn at Rye Beach, N. H., with his family, who have been spending the summer there.

Mr. James E. Davis, of Detroit, has just returned from a two months' vacation in the White Mountains, and can now be found at his desk dispatching business.

A $50,000 stock company has been organized to establish a medicine factory and chartered as the Paris (Tenn.) Medicine Co. by E. W. Grove, W. H. Lasater and others.

The Black Oil Company has been organized at Chicago; to manufacture oil for medical purposes; capital, $10,000; incorporators, C. Sadler, W. Plummer, H. A. Maurisson.

The Peres Manufacturing Company has been started in Chicago; to manufacture disinfectants; capital, $25,000; incorporators, Frederick Peres, F. C. Ed Gries, Jacques Pris.

Last week the match factory in Portland, Ore., belonging to Walker & Dana caught fire and the building with contents were almost totally destroyed. Loss $18,000; no insurance.

W. B. and J. B. Chisolm, of Charleston, have incorporated the Mount Holley (S. C.) Mining & Manufacturing Co. for the mining of phosphate and the manufacture of fertilizers. The capital stock is $25,000.

Mr. W. F. Tiemann and family, arrived home by the steamer State of Pennsylvania on last Wednesday. Mr. Tiemann went abroad for his health, and visited a wide scope of country. He has been much benefited by the trip.

The ship William McGilvery, of Searsport, Me., has been burned at sea while on a voyage from Pisagua to New York with 1,700 tons of nitrate of soda, for Hemenway & Brown, of Boston. The cargo was insured for $48,000.

Mr. Louis Lutz, of Lutz & Movius, returned home on the steamer Lahn, after an absence of three months, during which time he visited the principal European cities, and met many personal friends and business acquaintances.

Plate glass, polished on both sides, with the edges ground, and plate glass, ground on one side, polished on the other and the edges ground, is held to be dutiable as cast polished plate glass at the rates covered by paragraph 140.

The Nitro-phosphate Syndicate, limited, has been established in London to transact business in the United States, and manufacture sulphuric acid, super-phosphates, nitrates, iodine, and artificial manure of every description. Capital, £75,000, in £1 shares.

Mr. Albert S. Plaut, of the firm of Lehn & Fink, has been receiving many verbal and written congratulations during the past few days accompanied by inquiries as to the welfare of a new heiress—Miss Plaut. The happy father is overwhelmed with well wishes.

Mr. J. F. Beringer, the U. S. consul to Pictou, Ont., and proprietor of the Century Soap Co., of that place, is in the city on a brief visit, in company with Mr. Amos H. Baker, passenger agent of the steamer Empress of India and of the Grand Trunk and Erie railroad.

Messrs. Pratt & Lambert of this city have issued a large edition of two very instructive pamphlets for gratuitous circulation. The "Finishing and Staining of Natural Woods," with specifications, is the title of one, while the other is devoted to the "Interior Finish of a Modern House." Both can be had on application.

A deposit of asphalt has been discovered near Cloverport, Ky. It covers a large area, and is thirteen feet thick. It is just below the surface, and can be mined at very small cost. A comparison of it with the asphalt discovered in California shows the two to be almost identical in qualities.

Mr. A. A. Robbins of this city, announces in another column that he is prepared to quote prices for various minerals, clays, etc., which are used in the pottery, glass, chemical and other industries. Being a miner, miller and importer, Mr. Robbins is in position to give satisfactory terms.

Messrs. Kirby & Burckett, the drug millers and importers of this city, have been compelled to limit their vacations on account of business. Mr. Burckett has returned from a two weeks' absence in Buffalo, and Mr. Kirby is now taking a little recreation in Ulster county, New York.

Mr. Theodore K. Shipkoff, the essential oil importer, has spent a good portion of the summer in Bulgaria. On his way back to the United States he visited the Paris Exposition and considers it a great success. Mr. Shipkoff reached New York on Monday in excellent spirits and health.

Messrs. Sykes & Street, the sole agents in the United States for the St. Denis Dyestuff and Chemical Co., limited, have no cause to complain of dull business, as their three houses in this city, Philadelphia and Boston are kept busy in filling orders. That is one of the results of giving satisfaction in every case.

There is no reason why good soap cannot be made more profitably here than it can by the soap makers in the North, as we have right at our door, so to speak, the very best material for making it. Cotton-seed oil is made here, and it is but a short distance to where any amount of rosin can be had at low rates.—Meridian (Miss.) *News*.

That "Alcholene" is a valuable trade mark is evidenced by the increasing trade in the article. It is exclusively owned by the fortunate manufacturers who compose the Buffalo Alcholene Company. They make in addition special extra refined wood alcohol of the three different commercial strengths, and are finding an outlet for their entire production.

Mr. W. H. Schmidt, of A. Kiefer & Co., Indianapolis, has been enjoying a three weeks' fishing excursion in Colorado. He is now devoting attention to the details for the entertainment of the members and guests of the N. W. D. A., in October. The plan of arrangements which was adopted at the Saratoga convention with great success will be carried out.

Nearly all of the factories doing business in the New England States are represented in Boston either by the treasurers of the corporations—as in most cases—or by selling agents. It is in these offices that the general market accounts of the various mills are kept and where contracts are made for supplies of raw material and the disposing of the manufactured product.

The Eagle White Lead Company, of Cincinnati, is feeling the pressure of orders to such an extent that the capacity of the works has to be increased, which speaks well for the brand. The desire is to supply the demand for white lead and colors promptly and to do that the departments have to be enlarged. The work is now in progress and the company will be better prepared for the increased business.

Messrs. L. C. King & Co. of this city, the importers and dealers in shellac, tragacanth, senegal, wood alcohol, sugar of lead, etc., have occasion to congratulate themselves on the very satisfactory progress of business in their line. The enlarged volume of trade has been very noticeable during the past few months, and the present year will prove one of the most successful within the history of the house, which is due to enterprise and reliability.

The inventive genius of the present generation is in no way more comprehensively shown than by a stroll through the rather large and most certainly beautifully equipped toilet soap works of Fels & Co., Philadelphia. They occupy a four-story building, 100 feet front by 175 feet deep, filled with the most complete and latest machinery and making only toilet soaps, from the lowest in price to the most elaborate. They invite inquiries as to their manufactures.

One of the most important discoveries in the manufacture of glass was the result of a curious accident, according to a statement found in a glass trade journal. A man was engaged in melting some glass in a large pot, when it fell down, and the liquid run along the smooth pavement. Not caring to lose his glass, he took up the stones, when he found the glass in a sheet much smoother than could be obtained by blowing. This led to the "casting" of glass in sheets and plates.

The imports of quicksilver during the first seven months of the year have been 54,755 bottles, against 63,435 bottles in the corresponding period of 1888, and the exports 23,491 against 31,384. Assuming the demand in the United Kingdom to have been stationary, says the *Chemist and Druggist*, our entire stock would thus be about 12,500 bottles less than last year, but that in the first hand has probably not diminished to the same extent, as it is thought that there is less held by second-hand holders now than in August, 1888.

Messrs. James A. Webb & Son, the pioneer dealers in alcohol and cologne spirits in this market, date their connection with the trade back to a period that antedates the origin of many of the leading wholesale drug houses in this and other cities, who are numbered among their customers. The ability and enterprise of this firm have in that time secured for them a position of prominence which is beyond the reach of successful competition, and that their success is deserved is admitted by all with whom they have dealings.

The phraseology of the circular issued by the American Cotton Oil Trust at their meeting June 28th has been construed by many to state that they would hold another meeting on August 31st to consider the question of dividend; such was not the intent on the part of the trustees. What they wished to convey was that their fiscal year closed on August 31st, and that no action can be taken until all the reports are sent in after that date. In this light, business men will understand that it will take some weeks yet before a full account of stock and financial condition can be reached.

The two fertilizer bills in the Georgia legislature are arrayed against each other now. It would be interesting to know which will become a law. The Sanford bill, which was framed in the Senate when the committee was about to report on the Brady bill, has gone to the House to be reported upon. The Brady bill was reported upon adversely in the Senate, but a minority report is expected. Some of the fertilizer men believe that the Senate, seeing the hostile legislation in the Brady bill, passed the Sanford bill to head it off.

In answer to a complaint from a New York firm, they have been informed that an importer or his agent may be present at reappraisements, but that his absence will not deter the reappraising officers from proceeding with the appraisement. In answer to the request of a St. Louis house for reimbursement for goods damaged by repacking, the Department has replied that neither the government nor the collector or other chief officer of the customs is responsible for loss or damage to imported merchandise by reason of the laches or carelessness of subordinate officers or employes.

The high tides and heavy winds of the past few days have caused serious damage at Barren Island. The Barren Island Oil and Guano Company and P. White's Sons are the principal sufferers. Their aggregate losses are estimated at $20,000. A large strip of the most easterly portion of the island, upon which there was a large frame building containing valuable machinery and stock, was detached from the main island and everything on it was washed away. In the building were hydraulic presses of 220 horse-power each, a large engine, and forty carboys of acid which are buried in forty-five feet of water. This is said to be the biggest cave-in that has ever taken place there.

No settlement of the differences between the window glass manufacturers and the workers, over the question of wages for the next fire, has yet been reached. Both parties to the controversy are confident that the result will be in their favor, and neither shows the slightest inclination to compromise. It begins to look as though the shut-down will continue during September, as there has been no attempt on the part of either the workers' wage committee or the manufacturers' representatives to hold another conference. The manufacturers are evidently well satisfied to have the factories closed, as in view of the promised competition when the fires are started, every day of delay is so much clear gain.

The enterprise of German exporters is becoming a proverb. Every few months some new project is started by them, generally as a collective undertaking, looking to the increased sale of German manufactures in foreign lands. The latest thing of the kind is reported from Frankfort. The idea involved is one with that which started out exhibits by rail in this country last year. The only difference is that the German exporters will make use of a large steamship specially constructed for that purpose, instead of a railroad train, thus permitting of the display of a larger and more fully assorted stock of goods. The voyage, too, will be lengthened much beyond the time allowed for train-traveling exhibits; the cruise will last about two years, and the vessel will call at all the principal ports in the world.

PETROLEUM NOTES.

The Salt River Natural Gas, Oil and Mineral Co. has been organized at Bardstown, Ky., and leased lands on which to sink wells.

Mr. Hugil, of Pennsylvania, has purchased about 5,000 acres of oil lands in Weston county, W. Va., and will sink three test wells.

Mr. Joseph D. Weeks, of Pittsburg, has been appointed special agent to collect statistics of petroleum, natural gas and glass for the census of 1890.

It is carefully estimated that the West Virginia natural gas belt will prove one of the richest in the country when it is fully brought into development.

The Western Gas and Oil Co. has been incorporated at Newport, Ky., by E. W. Ober, J. B. Hutchinson, H. C. Rash and others, to develop oil and gas lands. The capital stock is $100,000.

Findlay has located several new gas wells, and will keep the drill going until cold weather sets in. The gas trustees will spend over $100,000 this year in improving and strengthening the city's natural gas plant.

The new tank steamship Bayonne has arrived at New York, where she will load refined oil for London. The Manhattan, the sister vessel, will load here for a port in the United Kingdom. Both vessels will carry over 1,000,000 gallons at a single cargo.

The drilling, on the Canadian side of Niagara Falls, met with some success last week. A vein was reached at a depth of about 200 feet and is supposed to be the same as that which supplied the burning springs. The superintendent of the drilling says the vein is only a fugitive one, and unreliable, and that they will drill 600 feet deeper and attempt to reach the great gas reservoir.

We are in receipt of a circular from Messrs. A. D. Miller & Sons, Pittsburg, whose refinery was recently damaged by fire, to the effect that repairs are already under way and expect soon to be again in full operation. Per contra the Pittsburg papers contain accounts of public meetings held by the citizens of Alleghany City to protest against the rebuilding of this refinery on the present site.

The London and Pacific Petroleum Company, Limited, has been incorporated; object, to acquire any petroleum or oil-bearing lands in the Republic of Peru, or any interest in such lands, and to sink wells and otherwise to search for and get petroleum and other mineral oils and products. Capital, £250,100, in 25,000 ordinary shares of £10, and 100 shares of £1 each.

The ship Bay of Naples, loaded with case oil for China took fire off Liberty Island in this harbor early yesterday (Tuesday) morning. Several steam tugs came to the relief of the vessel and after several hours' persistent effort the fire was got under control, not, however, until considerable oil had been destroyed. The ship is of 1,621 tons and is owned by the Bullocks Bay line of vessels, Liverpool. The cargo, 755,000 cases, was owned by Russel & Co., of China was fully insured.

Announcement is made that the firm of Moore & Crosby has been dissolved and that the business will be continued at 154 Maiden lane by the Eagle Refining Co., which is empowered to settle all accounts of the late firm of Moore & Crosby. The Eagle Refining Co. has works at Cleveland and Lima, O., and their facilities for supplying large buyers with anything made from crude petroleum are unsurpassed. They take pride in the quality of their goods, which recommend themselves.

The British tank steamer Russian Prince arrived at Baltimore last week to load refined petroleum in bulk for a continental port. The Russian Brince is a steel vessel of 2,102 tons register, 310 feet long, 40 feet beam and 28¼ feet depth of hold. She has three masts, and her hull is divided into fourteen tanks, the total capacity of which is 26,000 barrels, or 1,300,000 gallons of oil. The vessel was built at Newcastle, Eng., in 1888. When the Russian Prince returns to Europe she will enter upon a three years' charter with the Rothschilds to carry oil from Batoum to continental ports.

The Versailles township gas field has proved a signal failure and has been abandoned. In the last two years the National Transportation Company, which furnishes the National Tube Works with fuel gas, has been prospecting here, and has spent over $150,000 in that work. The Allegheny Bessemer Gas Company has also been in the field, but both will give it up. It is estimated that in all over $500,000 has been thrown away in this field. Attention will now be transferred to the Belle Vernon gas field. The Monongahela Gas Company will put down several wells at once in that territory, to be connected with the pipe lines which is being laid to Pittsburgh.

The Toledo *Blade*, after full investigation of the gas fields from which Toledo's trustees expect to draw the natural gas supply for the city, and the wells already secured, says: There is another thing in connection with the gas supply which the Toledo trustees seem to have overlooked. They have, as stated, wells showing a capacity of about 46,000,000 feet a day. But that does not mean that they can safely deliver 46,000,000 feet of gas a day in Toledo. All that they could use of their present supply with safety would be about 10,000,000 feet. It has been demonstrated that if a well is worked to its full capacity it is soon ruined. Unless about three-quarters of the gas is kept in the pipe to hold a pressure which will keep the salt water and oil back, that destroyer of gas wells will rush to the hole and the well is ended. Findlay got its experience of that last winter. All the city wells were worked to their utmost capacity, and the result was that oil and salt water was pouring from all the pipes. The Karg well, the best that was ever known, was worked for all the gas it had, and to-day is valueless. If Toledo wants to secure 40,000,000 feet of gas a day, it will have to provide for a store house of at least 200,000,000 feet.

CORRESPONDENCE.

This column is always open for the expression of public opinion, but the REPORTER assumes no responsibility for the views expressed by any correspondent.

Fertilizer Legislation.

NEW YORK, August 27, 1889.

Editor: OIL, PAINT AND DRUG REPORTER:

We take the liberty of saying a few words in reference to the editorial in your issue of Aug 21st under the heading "An unpopular fertilizer measure." The Brady bill alluded to therein, has passed the Lower House of the Georgia Legislature, and will, if it becomes a law, have a very beneficial effect upon the business of selling manufactured fertilizer to that State. So far, it has not been in a satisfactory condition, as far as the legal rights of fertilizer manufacturees were concerned, as against any arbitrary position of the consumers of fertilizers, who are largely voters, and therefore a power in the land.

If this bill becomes a law, its immediate effect will be to stop the sale of fertilizers in Georgia on credit. This much desired result will then have been brought about by the consumers of fertilizers themselves, whereas the combined efforts of fertilizer manufacturers in the past to do away with the unsatisfactory and pernicious long credit system, had utterly failed. If all the States in the Union could be prevailed upon to pass similar laws, it would have the effect of putting the fertilizer business on a cash basis, just where it ought to be, and eliminate that element of uncertainty from a business which, for its ability to liquidate, relies upon so unstable a basis as favorable weather, or good crops. This will make the selling of fertilizers a cash business, and then whoever buys fertilizer, will first be obliged to pay for it, and then put what trust he pleases in the efficacy of prayer for favorable weather to mature his crops.

The reports and analyses furnished by the Agricultural Stations will amply protect the buyers of fertilizers as to their quality and chemical contents. The Station reports will

terminate the responsibility of the seller of fertilizer, and the success or failure of a crop after such fertilizer has been applied to the soil will have no bearing upon the liability of the purchaser. The temptation to default on payment of goods sold to the farmer in good faith, on long credit, will then have been removed, and the fertilizer business will have been brought within commercial methods, now very foreign to it. We sell fertilizer materials to fertilizer manufacturers all over the country, in very large quantities, and we are, therefore, in a position to treat this subject comprehensively and understandingly.

We presume there are farmers in the Lower House of the Georgia Legislature, and that some of them owe money for fertilizers, but we believe them to be far removed from the suspicion that they would desire to wipe out their obligations by this radical legislation.

Under the present method of doing business the farmers buy fertilizers upon terms on which the manufacturers cannot purchase their raw materials, in this or any other country. They want the option of paying for their fertilizers after they have succeeded in gathering a good crop, no matter if it results from the excellence of the fertilizer or not, but should their crop be a partial or total failure, they want the right to refuse to pay for the fertilizer, no matter whether the failure is caused by an unfavorable season, poor seed, or neglect of cultivation, even though the excellence of the manure used have been attested to by the Agricultural Station of the State.

There might be some slight inconvenience caused to a few manufacturers who have already prepared fertilizers for the purpose of supplying them to their regular Georgia agents, but we know of several large concerns who have refused to buy raw materials of any kind for their Georgia business, until the fate of the Brady bill has been decided. They are fully determined not to send one pound of fertilizer to that state, unless the orders are accompanied by a satisfactory guarantee of a cash payment against shipping documents.

We therefore say, by all means let us have a Brady bill for every state in the Union, and put the fertilizer business where it ought to be—on a cash basis.

HELLER, HIRSH & CO.

[The foregoing letter was intended for last week's issue, but it arrived too late for proper classification.—ED.]

The Fertilizer Question in Georgia.

NEW YORK, Aug. 31, 1889.

Editor OIL, PAINT AND DRUG REPORTER:

The Brady bill having passed the lower house of the Georgia Legislature, and the Sanford bill in the Senate of Georgia, it is probable that one or both of these bills will become a statute of the State.

Both of these bills imply that the Experiment Station of Georgia, cannot be relied upon to do its duty and perform its functions, notwithstanding the backing of State laws and all its large income of funds from the State tax on the manufacturers of fertilizers and from the appropriation of fifteen thousand dollars by the United States Government. This bill now seeks by statute to assist in declaring the goods sold in the State fraudulent when it suits the purchasers to have it so appear, thus depriving the seller of his moral and legal due.

The Georgia State Experiment Station, so far as I have followed its work, does well, and the tax on the manufacturers brings a large revenue to the State in addition to the $15,000 granted by the general Government.

The direct sufferers by this bill will be the planters, and, through them, the State itself. Manufacturers who employ large capital in their business, to say nothing of brain power, will not place their capital at the mercy of men who can, at their own sweet will, refuse to pay their obligations, especially not, when this refusal is enforced by a statute of the State inciting its citizens to this course. This may look harmless on paper, but when purchasing time arrives for the planters to secure their supplies, and they are requested to plank down their cash, it may, and will, operate to their disadvantage. No longer will they have the credit of the fertilizer manufacturer to carry them through, and either the cash must be forthcoming or the acreage in the State be reduced. "It is evident that no person or corporation will permit the State to transact his business for him, and if the State insists upon so doing, their business must come to an end." If prices are regulated by demand and supply, and if an overproduction reduces prices, then, so far as the State of Georgia is concerned (if the Brady bill becomes a law), over-production will be settled by a smaller planting. Legislation is powerless to direct natural laws. This Brady bill presupposes a time credit as an essential in the purchase of fertilizers. It makes it a misdemeanor if the person to whom the note is given does not state on its face that it is for fertilizers, and it authorizes and directs the makers of the note to put in a plea of worthlessness of the goods, if the latter have not proved beneficial, making such notes negotiable.

No account of seasons of seed, of tillage, of the time spent at the cross-roads talking politics, of the high test at the experiment station, or samples taken by the State inspector, is to be taken into consideration.

None of these considerations move the Georgia planters under this law. The goods are condemned and that is the end of it and the seller may take to his boat and sing "Way down upon the Suwanee river."

Under this proposed law the legislators probably expect to find the fertilizer manufacturers so eager to sell to the planters of Georgia that they will trample on one another in the mad race for trade, so eager for it that each package of fertilizer will contain a chromo, and a prize for the largest crop, and a house will be erected at each railroad station to hold the prizes, while the crop is growing, and the premiums to be distributed prior to payment of planters' notes.

The proposed law to my mind, does not go far enough. It should include the mules on the plantation.

Why should the planter pay for mules, that might, perhaps, slip their wind and become worthless?

It should include all the farming utensils.

Why pay for machines that might break, and thus become worthless?

Under this law, mules and family implements may be bought on credit, and notes given in payment for same, collectable by law.

Georgia uses what is called here low grade fertilizers, as the desire of planters for cheap fertilizers had to be met, and planters get just what they buy.

I do not seek Georgia trade, believing that in sending out my goods, I want a trade that appreciates a large yield; a trade that will seek to raise on the smaller acreage, that which had previously been raised on a larger acreage in big crops instead of small ones, to raise on five acres what is now being raised on twenty. In the history of agriculture, there has been a barter period, when the produce of the farm was exchangeable at the store for goods; this to a great extent has passed, if not entirely disappeared.

The present is the time of credit, or the credit period, when the manufacturer lends his capital to the farmer to assist him in farm planting until harvest taking his notes, and negotiating them to raise funds, but if the Brady bill in Georgia becomes a law the near future in that State will wipe out the fertilizer credit system, non-negotiable notes being below par, and that will bring the cash period.

GEO. B. FORRESTER.

Freight Discrimination.

KNOXVILLE, TENN., Aug. 3C, 1889.

Editor, OIL, PAINT AND DRUG REPORTER:

The communication to your paper from Baltimore in regard to freights on epsom salts, sulphur and other heavy cheap goods to Atlanta, Ga., we feel, applies with equal and perhaps more force to our city than to the one just mentioned.

In a recent shipment of epsom salts from Baltimore, the freight was 75 per cent. of the original cost of the goods. The rate of freight on shoe blacking from Philadelphia to New Orleans was formerly 35c per 100 lbs. The present rate (we are informed by the manufacturers) is 50c per 100 lbs. The rate to our city is 71c per 100 lbs over the same route, although it stops short half the distance. The classification made by this system on school slates places the rate of freight so high to this point that it amounts to an utter defeat or a loss of money to the jobbers when brought in competition with some other jobbing points.

The rate of freight on brimstone and some other heavy cheap goods from New York is a very large per cent of the purchase, sometimes nearly equaling the amount paid for the goods themselves, manufactured, packed and delivered in transportation depots. The freight accounts are due immediately on arrival of the goods without rebate or cash discount.

Our interests and justice demand relief and we request that the dealers in Knoxville have a share in the petition for relief sought for Atlanta. Very respectfully,

CHAPMAN, WHITE, LYONS & CO.

[We suggest that our correspondents refer the matter to the Chairman of the Inter-State Commerce Commission. He is supposed to take into careful consideration all well authenticated causes for complaint, and if, on investigation, the charges of discrimination are sustained, the Commission will compel the transportarion company to equalize the rates.—ED. O., P & D. R.]

CHICAGO LETTER.

[Special correspondence of the OIL, PAINT, AND DRUG REPORTER.]

CHICAGO, August 31, 1889.

The linseed oil market has presented no new features of interest during the week. Crushers and brokers report trade as very quiet, with little oil being either offered or asked for. Prices remain unchanged, that is sales are at 58 cents for raw and 61 cents for boiled oil.

The dullness of trade may be said to be in a measure incidental to the season, large sales being ordinarily exceptional at this time of the year. But such an explanation is only partial. Consumers have for a long time past been buying only in quantities to supply immediate wants; as a consequence, their stocks are unusually low, even for the season, and it would not be unnatural for them to manifest more anxiety, if not to replenish them, at least to keep them up to a somewhat better standard. The truth is, however, that the trade is outspoken in its denunciation of the policy of maintaining present prices. Jobbers and grinders are pointing to the fact that a fall of from 15 to 20 cents per bushel in seed has been followed by a decline of only 7 cents in oil, and they make no secret of their displeasure at this disparity. They consider that they are entitled to a cheaper oil and are keeping out of the market untill they can get it. Steadiness, they say, is one of the most desirable characteristics of any market, but they add, "there is such a thing as too much steadiness." It is also rumored (although the rumor lacks corroboration) that new oil has been sold at current rates. This is probably untrue, but that it should find credence at all is indicative of the prevailing sentiment. Another rumor is to the effect that two of the largest paint manufacturing concerns of the city have determined to voice their disapproval by erecting and operating presses of their own, believing that as matters stand at present there is "money in it." This report, like the other, cannot be authenticated, and finds few believers. Another cause of complaint among paint men is the sale of western oil in Philadelphia, at 2 cents below the Chicago market, which is, they say, in reversal and defiance of all precedent.

On the other hand, it is said that the oil now being sold is made from high priced seed and that the price asked is proportionate to the cost of the raw material, and that it will be time enough to discuss the value of new crop oil when that begins to come on the market. It is also pointed out that the supply is light and that holders are justified on that ground in maintaining present values.

Altogether the situation is interesting. Just now the crushers have practically the best of it, inasmuch as they have the oil. Probably the whole matter will ultimately arrange itself to the satisfaction of all parties concerned when new oil becomes more plentiful.

There is a continued firmness in the oil cake market. A tolerable export business is reported for the week, and it is claimed that sales have been made on the basis of $22 75@23, which is higher than last week's prices. Exportations from Chicago this week were 366,672 lb. Total exportations since January 1 foot up 30,544,347 lb., as against 39,946,814 lb. during the same period last year.

FLAXSEED.

The official inspection sheet showed a decline of 6,189 bushels in store in public elevators last Monday, as compared with the beginning of the previous week, the exact figures being 54,112 bushels (48,738 of No. 1, and 5,374 of rejected), as against 60,301 (49,093 of No. 1, 6,366 of rejected, and 4,842 of no grade) the week before, and 46,122 bushels (45,081 of No. 1 and 1,041 of rejected) on the corresponding date of 1888. How far this supply has been increased during the week just closed may be approximately estimated from the following official statement of inspections, although some of the seed withdrawn has been taken from private elevators: Inspected in 243 cars of No. 1, 43 cars of rejected, and 24 of no grade, against 153, 25, and 6, respectively last week, and 162 cars of No. 1, 36 of rejected, and 69 of no grade during the same week of last year. There have been inspected out during the past six days 30,027 bushels (about 60 cars) of No. 1, and 500 of the lower grades; last week such inspections amounted to 93,635 bushels all of No. 1.

The daily movements of flaxseed at Chicago for the week, according to figures furnished by the Secretary of the Board of Trade, are shown in the following table:

	RECEIPTS.		SHIPMENTS.	
	1889.	1888.	1889.	1888.
Monday	10,984	16,859	34,698	10,920
Tuesday	26,462	14,133	8,656	13,538
Wednesday	14,874	28,210	6,780	9,456
Thursday	17,505	31,288	4,215	7,429
Friday	24 072	16,274	12,348	28,235
Saturday	31,528	7,775	8,720	13,777
Total	115,425	114,544	75,417	83,355
Last week	68,500	106,638	78,381	58,800

In the cash flax market, the week opened with the largest receipts of the season 79 cars. So large a percentage, however, was tendered on contracts that the effect on offerings was hardly noticeable. There was a good active demand, and No. 1 was taken at Saturday's quotations—$1 26—with some extra choice bringing $1 26½. Rejected sold at $1 24. and a single car of no grade at $1 21½, though for some $1 22 was asked, while for some $1 20 was bid. On Tuesday and Wednesday the market was quiet but steady under the influence of moderate offerings and a slightly curtailed demand. There was no essential change, ordinary to choice No. 1 selling at about Monday's prices. Rejected sold at $1 23@1 24, according to quality, and no grade brought $1 20. Thursday's market showed an improved demand, with yet lighter offerings; car lots of No. 1 advanced ½c, selling at $1 26½, while for round lots ½@1c better was asked. Rejected brought $1 24@1 24½; no grade sold at $1 22, and a small lot of the latter was delivered at 7½c under No. 1. A bag lot of seed not graded changed hands at $1 25. There was but a small volume of business on Friday, but prices ranged 1@1½c higher, the market closing firm. No. 1 sold at $1 27½@1 28, with some choice at $1 28¼; rejected at $1 25, and no grade at $1 22. To-day's offerings were fair, but under the influence of a good demand No. 1 gained 1@2c, selling at $1 29@1 30, but the market closed at $1 29. The shipping demand (by rail) was good. Rejected was about $1 26@1 27, and no grade sold at $1 25.

Prices for No. 1 during the week have ranged from $1 26@1 30, as against a range of $1 21@1 26 last week, while for the corresponding week for last year it was $1 18@1 23¼. Reported sales on the floor of 'Change aggregate as follows: Of No. 1, 155 cars and 1,500 bushels, as against 87 cars last week; of rejected, 11 cars, as against 5 cars last week; of no grade, 9 cars, as against 2 last week; of seed not graded, 125 bags; total, about 179 cars, or about 83 cars more than last week.

The speculative market opened with a fair all round demand. Near futures showed but a trifling improvement over Saturday's quotations, but there was a higher range for May, which showed much firmness. The course of the several future deliveries may be briefly sketched. August sold on Monday at $1 26@1 26½, which was the closing quotation of last week, and about ½c above cash; on Tuesday, perhaps under the influence of a rather heavy cash market, it sold at the same price as cash No. 1, $1 26; it was not mentioned subsequently. September delivery opened on Monday at $1 26, or ½c lower than the figures at which the bulk of Saturday's trading was done, but later sold at $1 26¼@1 26½, closing at the outside; on Tuesday, it sold moderately at $1 26, early, but at the extreme close 5,000 bushels brought $1 27; Wednesday's sales were very light, and $1 26 was the best price obtainable; a few cars sold on Thursday at $1 26½, but $1 27 was bid later for round lots; on Friday, sales at $1 28@1 28½ were made, the market closing at the outside; to-day, September was the focus of interest; opened at $1 29, sold up to $1 32, and suddenly dropped to the opening price, closing at that but unsettled; October sold sparingly Thursday and to-day, bringing $1 27 and $1 29@1 30 respectively. Year was neglected on Monday, and showed but little animation on Tuesday and Wednesday, although there were light sales on each day at $1 26; on Thursday buyers were more numerous (there being some inquiry to close contracts), and this delivery took an upward bound selling at $1 27@1 27½, with most of the sales at the outside, and closing at $1 27 bid; on Friday there was a little trading at $1 28; to-day sales were made at $1 28, $1 29 and $1 30, being about the same as September at the close of the session. As has been already said, May exhibited marked activity on Monday, $1 31½ was bid at the opening, but there were no sellers at less than $1 33 and before the close $1 35 was obtained, at which price most of the selling was done, and at which the market closed firm and strong. It was said on the floor that the demand emanated from "shorts." On Tuesday, there was less inquiry, but there were sales at Monday's outside figures, but the market closed with offers at $1 35 and no buyers. On Wednesday, this feature was neglected and sold sparingly at $1 34. There was more trading on Thursday, and May reacted to $1 35, although a broken lot sold at $1 34; yesterday a number of small lots sold at $1 36; to-day this delivery opened at $1 37, or 1c higher, and was held later at $1 40, but without sales, and was finally obtained at $1 37.

The week's sales of futures (apart from August delivery) have been: Of September, 64 cars and 104,700 bushels, as against 29 cars and 73,000 bushels last week; of October, 11,000 bushels, as against 1,000 last week; of year, 5 cars and 60,000 bushels, as against 6 cars and 20,000 bushels; and of May 2 cars and 52,000 bushels, as against 34,000 bushels a week ago.

OILS.

In cotton oil there has been a slight improvement during the week, so far as the volume of business is concerned, although no change in prices can be reported. The improvement in demand (which, by the way, has been very slight) is attributed by brokers to the better tone of the lard market.

There continues a fair demand for extra lard oil. The market remains nominally at 49c, but there have been sales at 48c. The improved tone of the lard market has not as yet reacted upon that for lard oil, nor does there seem to be any immediate prospect of an upward turn in the latter, particularly in view of the fact that the export inquiry has been reduced to a minimum and that the miners' demand has materially fallen off in consequence of the labor troubles.

Advices from Holland received here this week have fully confirmed the apprehensions expressed last week and week before as to the effect of accumulations upon the Dutch market. The panicky feeling noticed last week has resulted in forced sales, which, in turn, have induced a further decline. The depression has been steady during the week and has ranged (on different leading brands) from 1 to 3 florins. To-day's sales are reported as having ranged at from 47@50 fl., according to quality and brand. However, the atmosphere has been cleared, and so also has the accumulation. This week's sales have aggregated 8,00 tierces, as against 3,409 a week ago, and have very nearly equaled those of the last fortnight. This week's exportations have been 4,073 tierces, as against 5,047 last week, and receipts at Rotterdam have been 4,398 tierces, as against 4,744 the week preceding. It is difficult to predict the future course of the market, but cablegrams received to-day indicate that at the close

churners were regaining confidence, and that a moderate consumptive demand might be expected this week. The local market remains flat and uninteresting, with no sales of any consequence reported.

PAINTS.

But little of interest has attached to the paint market this week. The slight improvement reported in some quarters last week seems to have encountered a sultry blast and fallen into premature decay. The volume of business continues light, but there is perceptible a cheerfulness of tone on the part of jobbers in speaking of the outlook. White lead is moving into consumption fairly well on moderate jobbing orders. Apropos of white lead, the trust is preparing to reduce its expenses at this point very materially. Last Monday the trade received a circular to the effect that the Eckstein brand of white lead will hereafter be distributed in Chicago and its adjacent territory by either the Southern or Shipman Company. This step will, of course, do away with the necessity of a separate agency here. Another important change in the system of distribution has occurred this week in the transfer of the business of the St. Louis White Lead and Oil Company to the office of the Collier Company. The impression prevails here that these steps are preliminary to a consolidation of the business of distributing all these brands from Chicago under one central control in this city.

The jobbing demand for quicksilver vermilion continues fair, but the business is not of a sort satisfactory to large dealers. The failure of the manufacturers to advance prices to a point where they will maintain normal relations to that of the crude materials tends to maintain an unsettled feeling as to the future. There has been some talk of low offerings of whiting, but it is difficult to trace them to an authentic source. As contracts are already pretty generally made, they amount to little. The general list remains quiet and unchanged.

The name of President Morrill of the Lawson Varnish Co. has been added to the list of members of the paint and varnish committee of the Chicago World's Fair Company. Owing to the continued absence from the city of some of its members, the committee has not as yet taken any action.

DRUGS.

Business during the past week has been excellent, and the last fortnight's trade has been of sufficient volume fully to compensate for the dullness of the earlier part of the month. Jobbers generally report a satisfactory increase of sales for August over July, some placing the increment as high as twenty-five per cent.

Opium shows no change as regards either prices or demand. The gum is still being billed in a jobbing way at $3 30 and powdered at $4 75. Morphine also shows no change as yet, but in view of the fact that it has not kept pace with the upward movement of opium, there seems to be a prevailing impression here that there will soon be a marked advance.

The quinine market is in an unsettled, not to say feverish, state. Manufacturers' agents are asking 28@28½c, and jobbers 29. The report of the last bark sale appears rather to have disturbed the calculations of those who have been prophesying a reaction in prices when the sulphate passed the 30c limit, and it is hard to find any one just now who will hazard a prediction as to the future. It is conceded that the present price of quinine is a fair one on the basis of quotations for bark, but whether or not the latter are in any degree being maintained by foreign speculators is a puzzling question. Speaking generally, the local jobbing trade cannot be said to be heavily stocked, and there is no speculative inquiry from the country heard as yet. Still, trade cannot be said to have reached extraordinary proportions, but the general feeling is very firm.

Shellacs are showing considerable strength and prices are higher.

CHEMICALS AND DYESTUFFS.

There has been a moderately active trade in chemicals. The demand, however, has been wholly consumptive in character. In prices there have been no noteworthy changes. The heavier lines of goods attract most attention, and the firm feeling prevailing is generally attributed to advices from abroad.

Carbonated soda ash, Liverpool 48% is still being quoted at $1 45 for round and $1 47½ for small lots. Trade remains quiet, and only moderate sales are reported. It is understood that some of the largest bottle manufacturers will not resume operations before October, and altogether the prospect of an active business in the near future is not particularly bright. Caustic ash remains flat, so far as sales are concerned, with nominal quotations unchanged. For refined alkali there has been a slightly better demand, and a firmer feeling is noticeable. There is an impression that the Solvay people are behind on filling orders, and in consequence prices have slightly advanced. To arrive is quoted at $1 27½, and spot would probably command a slight premium. There continues to be a moderate inquiry for caustic soda, and $2 37½@2 40 is still being asked, with a disposition on the part of sellers to demand the outside figures. Sales are chiefly of 70%, but on the basis of 60%. Domestic sal soda is still quoted at 90c and $1 10, and buyers continue clamorous for concessions, and there are yet rumors of sales being negotiated on p. t. Bleaching powder is dull, and the slight tendency to advance which was noticeable a week or two ago has apparently been checked.

There is still a fair demand for tartaric acid and cream tartar, which are selling with considerable freedom. Alum, also, is in tolerably fair request, prices are very firm, and there is an expectation in some quarters that they are likely to go higher. The report of a decline of ¼d (or about ⅓c) in the English market has rather interfered with the placing of orders for chlorate of potash, some large buyers evincing a disposition to await developments, apparently in expectation of yet lower prices.

There is no material change of tone in the dye market. There has been the usual jobbing inquiry, and a fair volume of trade. Anilines find a steady outlet, as also do chromes, at unchanged figures. Cutch is very quiet, with only occasional sales reported. Logwood, both stick and extract, remain in statu quo, There is a suspicion here that the extract business would be better if thre were a little check placed on productions. The bullish feeling in logwood which seems to characterize the views of eastern importers finds little sympathy here, the prevalent impression being that their arguments in favor of an advance have not the best foundation on which to rest.

THE GLASS MARKET.

The market for plate glass shows much strength, and one leading concern has "stiffened up" a little within the past ten days. The majority of western jobbers are carrying very light stocks, and some surprise is expressed that manufacturers do not advance prices. It is generally conceded that a rise of five per cent. on American plate might be safely made without precipitating foreign competition, but on the other hand it is suggested that such a course might stimulate competition at home in the form of the establishment of new works. Trade in both plate and window glass is fairly good for the season, but there is little hope here of anything but another disastrous year to follow the relighting of the fires. It is understood here that the proprietors of the "big tank" have come to terms with their workers, and it is supposed that this will necessitate a surrender and early resumption of operations by the pot men. Hence, the apprehension of another year of over-production with its attendant derangement of values.

FLAXSEED FOR AUGUST.

The figures given below show the movement, inspections in and out, and range of prices of flaxseed at Chicago for the months of August, 1889, 1888 and 1887.

TOTAL MOVEMENT.

	1889.	1888.	1887.
Receipts, bush	301,719	351,043	721,553
Shipments, bush	75,417	218,530	625,726
Inspections in (cars):			
No 1	705	523	1,525
Rejected	111	93	99
No grade	64	131	26
Total	880	747	1,650
Inspections out (bu):			
No. 1	207,136	....	....
Rejected	2,000	....	....
No grade	500	....	....
Range	$1 20@1 33½	$1 10@131	97@$1 06

CALUMET.

MISCELLANEOUS.

Tribute to a Statistician.

Representatives of different trades have been favored so often with valuable information concerning imports and exports, by Hon. W. F. Switzler, the popular chief of the Bureau of Statistics at Washington, that they will read with interest the following short sketch of his career from the Washington *Press:*

"Hon. William F. Switzler, 40 years editor of the *Columbia Statesman* in the State of Missouri, historian of the State, a promoter of her educational institutions, an old line Whig, a devoted Union man during our civil war, came down from these high places, supported Grover Cleveland for President, and accepted under his administration the position of chief of the Bureau of Statistics in the Treasury Department. Col. Switzler is a man of the highest integrity, and in the use of figures in his department, in arranging statistics, has been absolutely impartial. In fact, it is stated that in a conversation with President Cleveland concerning the teachings of his elaborate report of the productions of wool throughout the world, he said that the multiplication table did belong to the Democratic party, and whatever deductions politicians and statesmen might make from his report did not concern him as chief of the Bureau of Statistics. It is to the credit of President Cleveland that he replied: 'Your position is the correct one. A statistician must be absolutely impartial.' Whatever reports may have been circulated in regard to Col Switzler's relations with the subordinates in his office, it is but just to say that Democrats and Republicans alike are his personal friends. Whatever President Harrison may do as a Republican relative to his successor, an acquaintanceship of more than 30 years warrants the statement that few men in the State of Missouri have warmer friends or deserve the respect of all good citizens more than William F. Switzler."

Occidental Oil Company.

Last winter, an extensive factory in South Brooklyn, near the Atlantic docks, was completely overhauled and fitted with the latest improved machinery for manufacturing vegetable oils. Another brand of castor oil has been put upon the market as a result of the undertaking and it bears the very appropriate name of "Peerless." Experts and others who have used it inform us that the quality is fine. Winter white and yellow cotton oils are also being made and offered from this source with good results.

The new enterprise is conducted by the Occidental Oil Co., with Mr. Robert B. Brown as president. The name of this gentleman is sufficient guarantee of success, as he established the flourishing R. B. Brown Oil Co. of St. Louis, and a cotton oil mill in Texas, subsequently serving as president of the American Oil Co. Having confined his energetic efforts to the vegetable oil business for a period of 21 years, his practical experience in this line has not only reflected a creditable management, but will serve to promote a successful issue of future plans.

Castor oil will be the leading product, and Mr. Brown expects to find a promising field for corn or maize oil in the paint trade, which he will enlarge from its present small proportions. Some years ago it was discovered that the germs of corn, which are a waste material in the manufacture of starch and hominy could be utilized, and experiments satisfied him as to the value of the discovery. New processes will be employed in making an extra fine quality of cocoanut oil, but the production will necessarily be limited by the light supplies of raw material. The office of the company is at 14@20 Whitehall St., New York. Mr. Brown can be seen daily on the Produce Exchange, where he receives many orders.

The Fertilizer Bills.

Messrs. Heller, Hirsh & Co., who have a communication in our correspondence column, relative to the Brady fertilizer bill now before the Georgia legislature, were interviewed concerning the Sandford bill which was subsequently introduced and commented upon by the REPORTER last week. The opinion of the firm was expressed as follows:

"Regarding the Sandford bill, we have very much the same opinion as we have about the Brady bill, viz., that any legislation seeking to give an unfair advantage to debtors over creditors (be the article purchased fertilizer, dry goods, boots and shoes, or anything else) is bound to have but one result, viz., the withdrawal of credit from such debtors. From this standpoint we would say that, if any legislation on the lines of the above mentioned bills is intended to be passed by a community purchasing almost exclusively on credit, then the sooner the credit system is abolished the better for the trade in general. The attempt to have a sealed sample of goods, which by reason of decomposition is subject to chemical changes, retained for almost an entire year, with a view of helping a dishonest purchaser of such material to default on his promissory notes, is so flagrant, that it hardly needs commenting upon. An attempt to keep as a sample of a sale, a pair of boots, or a pair of trousers, or a quart of seed, to represent such goods sold by manufacturers to dealers in these articles, and which sample would be subject to the action of mold, rot, or the attack of moths, would be about as sensible and practical as the measures proposed by the astute Georgia legislators. We do not believe that a majority of the farmers in any State would favor the passage of such unfair laws.

"Another point that is now being seriously considered, is the abolition of the absurd custom ruling in the Southern States and no where else, that the manufacturer of fertilizers is compelled not only to grant an almost interminable credit to the buyer thereof, but he is furthermore compelled to advance the cash necessary to pay the freight to the interior, which sometimes credits $7 to $9 per ton, on all the fertilizers sold to such interior points on promissory notes which may or may not be paid at maturity, depending upon the elements, and very uncertain elements indeed, because they contain two ingredients—the integrity and ability to pay on the part of the producer."

Floating a White Lead Company in England.

A special meeting of stockholders of the company that was started in London to manufacture white lead by a new process, was held recently to consider what progress had been made. The chairman said that applications had been received for 840,428 shares, and the amount paid into the bankers of the company was £163,834, the number of applications being 2,427. One hundred and fifty thousand shares were allotted to 2,211 subscribers, and the company returned application money to the extent of £55,968. The works at Glasgow had been taken over, and were being carried on for the benefit of the shareholders. Additional land had been acquired for the extension of the works, and for the construction of a siding on the North British railway. All the necessary steps had been taken for erecting buildings, furnaces, &c., in preparation for a large business. Replying to a number of questions put by shareholders, the chairman stated that the present price of the shares was due to the operations of those who had sold what they did not possess, and were bearing the shares in the hope of inducing timid holders to sell. Negotiations, which they hoped would terminate satisfactorily, were in process for the sale of their patents and licenses to subsidiary companies. The opinions of experts had been taken who had reported as to the unquestionable value and originality of their process; that which was spoken of by some as a rival process differed from theirs in very material respects. The product was a sulphite, whilst theirs was a sulphate of lead. They were now selling all they could make, and had since the company started realized as much as £28 per ton. The solicitor of the company added that patent rights had been applied for.

Serious Fertilizer Dispute.

State Chemist White of Athens, Ga., and John D. Weld of Savannah, have got into serious trouble, owing to the recent analysis of a fertilizer. Last spring a club of Scriven county, Ga., farmers purchased thirty-seven tons of dissolved bone phosphate from Weld, who acted as an agent for a manufacturer. The results were so unsatisfactory that the farmers determined to investigate, and through Representative Humphries brought the matter to the attention of the commissioner of agriculture, and requested an official analysis, submitting a sample. The commissioner marked this No. 39 and sent it to Dr. White. Dr. White's analyses showed it to be a high gaade of fertilizer, and its commercial value $25 43.

Representative Humphries pronounced this emphatically wrong, and the commissioner submitted portions of the sample to two competent chemists. Their analysis made it a low grade, one giving its commercial value at $11 77 and the other at $12 97. This raised a breeze which narrowly escaped legislative investigation. Representative Humphries and his people became suspicious that there was fraud somewhere, and were disposed to couple Dr. White with it. The commissioner set out to get at the bottom of the matter, and wrote Dr. White calling his attention to the wide difference in the analysis, and asked for his immediate presence in Atlanta, Dr. white replied in a lengthy letter, stating that it was not convenient for him to go to Atlanta, unless it was an imperative necessity, and expressing the opinion that the sample must have been mixed.

The commissioner then sent Inspector Woolley of the Savannah district to Scriven county and Savannah to investigate. In Scriven county Inspector Woolley procured another sample of the same fertilizer and sent it to the agricultural department. A portion was sent to Dr. White and a portion was submitted to Mr, McCandless. Both of the last analysis were practically the same, and confirmed the first analysis made by an outside chemist. In Savannah, Inspector Woolley visited Mr. Weld and found that the thirty-seven tons had been tagged, but the records of the department shows that it was fraudulently tagged, as there never had been an inspection.

The commissioner instructed the inspector to take immediate steps to prosecute Mr. Weld, who, unless he can clear himself, i liable to punishment under section 4,310 of the code for misdemeanor. The action taken by the commissioner with reference to Dr. White loses him his $3,000 position, as he has issued an order removing the office of state chemist from Athens to the state capitol, where Dr. White's connection with the university will prevent his following it.

The information given above is from the Savannah *News*, but a different complexion may be given to the case when the other side is heard.

The Charges Against Perfumers.

Chief Justice Barnard on Saturday granted the motion of Clarence F. Birdseye, the general assignee of D. Kellogg Baker & Charles A. Clark, wholesale grocers, of New York City, for a change of venue in his suit against W. J. Austen & Co., perfumers, of New York and Oswego, and Thomas Kingsford, impleaded with them. Austen & Co. are charged with making a fraudulent assignment to Kingsford, whereby they avoided the payment to the plaintiffs of $59,007 54, for which sum they had received judgment against the defendant firm. Austen & Co. make a general denial of the charges. It is said they turned over $75,000 worth of property to Kingsford.

Sales of Machinery.

Messrs. Chas. Kaestner & Co., of Chicago, the well known builders of paint machinery and specialties report their trade as booming, with the following recent sales: Curry Manufacturing Co., Chicago, three 16 inch double Fuller & MacAuley patent water cooled mills and mixers; Harrrison Bros. & Co., Philadelphia, Pa., one 16 inch water cooled Western mill and mixer. The Johnson Magnetic Paint Co., Chicago, one 72 inch putty chaser, one 24 inch combination mill, mixer and cooler, and one 24x24 inch double geared mixer. J. B. Schlichter, Chicago, one 72 inch chaser, one 24 inch combination mill, mixer and cooler, one 20 inch Western mill and mixer, and one gang Gaston double water cooled mills. Chicago & N. W. R. R. Co., Chicago, two 20 inch Western mills and mixers. T. L. Blood &

Co., St. Paul, Minn., three 30 inch Western mills and mixers. Hartwell Daniels Printing Ink Co., Kansas City, Mo., one pony mixer. Geo. B. McKee & Co., San Jose, Cal., one pony mixer. Sewall & Hughes Paint & Glass Co., Kansas City, Mo., one 20 inch Western mill and mixer. Pullman Palace Car Co., Detroit shops, one No. 1 power chilled iron mill. Pennsylvania Paint Co., Erie, Pa., one 16 inch double water cooled mill and mixer. Messrs. Kaestner & Co. will soon put on the market an improved 6 roller paint mill with double mixer, and a full line of can cleaning machines and a novelty in paint grinders.

The Handling of Leached Ashes.

The Treasury Department has made a decision of considerable interest to farmers along the Canadian border. It is embodied in the following letter dispatched lately to the Collector at Oswego, N. Y.:

"The Department is in receipt of your letter of the 14th instant relative to the practice obtaining in your district in regard to the importation from Canada by enrolled and licensed canal boats of leached ashes destined for various inland places in other districts. It appears from your statement that the ashes are used as a fertilizer, and are not of sufficient value to bear the expense of much handling, and that the practice has heretofore been to let the master make entry of his vessel and file manifest of the cargo, and to permit him to go inland, via canals and rivers, to his destination in the manner prescribed by articles 170 and 171 under section 2,779 Revised Statutes, but without a bond for the production of certificates of entry at the various ports of destination as required by article 172. You state that you find law and regulation for transportation of dutiable goods inland or coastwise (Revised Statutes, sections 2,779 to 2,783), but that you do not find any authority for permitting an importer to have unrestricted custody even of free goods until the same have been regularly discharged under the supervision of customs officials, and you, therefore, request instructions in the matter. Upon an examination of the law and regulations above referred to, the Department is of opinion that they are applicable only to dutiable goods and consequently that the leached ashes in question, being exempt from duty, cannot properly be forwarded in the manner above stated but must be regularly entered at the first port of arrival in the United States (see section 9,-648). You will please adjust the practice and advise the importers accordingly."

The Rate on Medicinal Soaps.

The Treasury Department has overruled the action of the appraiser at Boston in assessing duty at 50 per cent. ad valorem on certain medicinal soap imported by the Martello, March 11, 1889, and returned by the appraiser as proprietary preparations. The Department decides that the soaps are not proprietary, and that, in accordance with the opinion of ex-Attorney-General Garland, referred to in a decision of January 20, 1886, they should be classified as soaps not otherwise provided for, at 20 per cent. ad valorem. Acting-Secretary Batcheller says in his letter that the results of examinations made by the proper officials in New York "show them to possess varying proportions of the particular medicinal and other ingredients which are indicated in their respective names, such as ichthyol soap, tar soap, sulphur soap and creoline soap; the said constituents being added during the ordinary process of soapmaking in the same way as perfumeries and other qualifying ingredients are added to other soaps, and that, so far as can be ascertained, they are in all respects what are known and acknowledged to be soaps."

The Whaling Fleet.

Dispatches have been received from San Francisco which report the arrival at that port of bark Thomas Pope, 39 days from Point Hope, in the Arctic ocean, which would make dates from the fleet to July 20. She has on freight 30,390 pounds of whalebone, including some known as "trade" bone.

The following vessels are reported: Steamers Belvidere, N. B., 2 whales; Lucretia, do, 2 do; William Lewis, do, 1 do; barks Reindeer, do, 3 do; Ladoga, do, 2 do; Jacob A. Howland, do, 1 do. Also the following San Francisco vessels are reported: Steamers Beluga, 2 whales; Balena, 1 do; Narwhal, 4 do; Orca, 1 do; Thrasher, 3 do; J. H. Freeman, 1 do; barks Helen Mar, 1 do; Hunter, 1 do; Northern Light, 2 do; James Allen, 1 do; schooner Rosario, 1 do. This makes a total of 28 whales taken as compared with 23½ whales taken up to a corresponding date last year.

An Arsenic Mine.

The *Pall Mall Gazette* says that Mr. H. Macan, describing the arsenic industry in Devonshire, says that the "best known mine in that county which supplies arsenic in quantity is the 'Devon Great Consols,' near Tavistock. Refined white arsenic is here obtained from the rough ore, and the company is working over again in the furnaces, for the sake of the arsenic, much refuse thrown aside in the palmy copper days. The purely mechanical processes of sorting and crushing various kinds of ore are performed by elaborate and very perfect machinery. Compounds of arsenic are volatile, while those of copper and tin found with them are not so, therefore when the ore is roasted strongly all the arsenic passes off as vapor and collects in the flues, leaving the other substances in a fit state for reduction to the metallic condition. In former days the fumes were allowed to pass off into the workshops and into the air, causing fatal results among the workmen and destroying the surrounding vegetation for some distance. But now that arsenic (and not copper) is the most valuable product, precautions are taken to prevent any escape."

Decision on Oil Well Packing.

Following is the decision of the U. S. Circuit Court of New York in the case of the Consolidated Oil Well Packer Company vs. Galey:

1. Cross—Packing for Oil Wells.

The second claim of reissued Letters Patent No. 7,772, granted July 3, 1877, upon the application of John R. Cross, for an improvement in packing for oil wells, obtained 12 years after the date of the original patent, is an undue expansion of the first claim of the original patent.

2. Robinson and Strong—Packing for Deep Wells.

Reissued Letters Patent No. 8,786, granted July 1, 1879, to John K. Robinson and D. A. Strong, for packing for deep wells, Held to be an unwarranted enlargement of the original patent. The thing which was the subject of the original patent and the thing which it is desired to bring within the terms of the reissue are entirely dissimilar.

3. Martin—Deep Well Packing.

The fourth claim of reissued Letters Patent No. 7,244, granted July 25, 1876, to Francis Martin, for deep well packing, compared with the second claim of the original patent, and Held to be not an enlargement or expansion of the original claim, but a statement in more clear and precise language of what is contained in the modified language of the original claim. The question of patentable novelty not considered.

The decision is by Judge Shipman:—

This is a bill in equity to restrain the defendant from the alleged infringement of Reissued Letters Patent No. 7,772, dated July 3, 1877, to John R. Cross, assignor to H. H. Bliss; of Reissued Letters Patent No. 8,786, dated July 1, 1879, to John K. Robinson and David A. Strong, and of Reissued Letters Patent No. 7,244, dated July 25, 1876, to Francis Martin, assignor to Henry H. Doubleday, all being for improvements in packing for oil or deep wells. The original patents were issued as follows: The Cross patent upon February 7, 1865; the Robinson and Strong patent upon February 6, 1866, and the Martin patent upon September 12, 1865.

The Cross and Martin patents were before me in the case of the Consolidated Well Packer Company v. Eaton, Cole & Burnham Co. in the District of Connecticut, and the alleged infringing device in this case is believed to be substantially the same which was the subject of that suit. The opinion in that case (12 Fed. Rep., 865) states the facts relating to the history of the art, the character of the improvements which were the subjects of the Cross & Martin patents, the several claims which were said to be infringed, the claims of the original Cross patent, the reason why all the claims of the reissued Cross patent were deemed to be invalid unless limited to the scope of the original claims, in which case there was no infringement, and the fact that the validity of one claim only of the reissued Martin patent was in dispute. The discussion in the present case was confined, by agreement of the parties, to the consideration of the validity of the reissues, and all other questions which may arise were reserved for a future hearing.

It is earnestly contended by the plaintiff that the second claim of the reissued Cross patent was not an undue expansion of the first claim of the original patent. The question was succinctly stated and answered in the decision in the Connecticut case, and little is to be added to what was there said. The first claim of the original patent was carefully limited to a packer in which the rings which compress or relax the packing material are operated from the top of the well by screw-rods. The second claim of the reissue omits that limitation, and thus eleven years after the original patent was granted its scope was greatly enlarged. It is not important that other and different means by which the rings might be operated were stated in the original specification, because these means were not claimed, and the invention as patented was limited to the use of screw-rods and their equivalent and so remained for a long period.

The Robinson and Strong reissue, which was granted 13 years after the date of the original patent, is of the same expanded character. The packer which was described in the original patent was constructed as follows: A cone was placed upon the end of one of the sections of the tubing, which could be a part of the tube or could be attached thereto. A concave made of elastic material was attached to the upper tubing, which, when the upper tubing reached the cone, was by its aid pressed out against the sides of the well.

The claims were as follows:

1. The tubes forming a teloscopic joint, in combination with the flexible packing, substantially as described.

2. In combination with a teloscopic joint, the conical enlargement, slots, and screws or pins, substantially as described.

3. The cone and flexible packing, arranged and operating substantially as described, forming a packing both for the well and the tube.

The first claim, unless the tube should be construed to mean the tube with the attached cone, was larger than the invention. The specification of the reissue was rewritten and expanded. The cone became an enlargement or unyielding band or ring and the concave became a ring or band of elastic material which, as the upper section moved downward, was compressed or expanded, and this, it was said, was only one form of the invention. The first three claims of the reissue are capable of including a large variety of devices.

The claims are as follows:

1. In combination with the eduction-tube of an oil or other deep well, an outer tubular connection attached to the tubing in such manner that the upper section can move vertically, and a rubber annulus supported against downward thrust by the outer tubular connection and pressed against the wall of the well by the weight of the vertically moving eduction tube, substantially as set forth.

2. An eduction tube of an oil or other deep well, made in two sections connected with each other by means of an outer tubular connection in such manner that the upper section can slide vertically, and the rubber annulus surrounding the tube supported against downward thrust by the lower tube section and pressed against the wall of the well by the upper tube section, substantially as set forth.

3. In combination with the eduction tube of oil or other deep well, which is composed of two sections, an elastic or flexible packing and a telescopic coupling which is provided with means, substantially as described, whereby, when the upper section is removed from the well, the lower section will be carried with it.

4. An eduction tube of an oil well or other deep well, composed of two sections coupled together in such manner that the upper section can slide vertically relative to the lower section, in combination with a flexible ring or band supported upon one of the tube sections, and an unyielding wedgeshaped enlargement which presses the packing against the wall of the well when the upper section of the tubing moves downward relative to the lower section, substantially as set forth.

For these claims the device which was clearly described in and was the only subject of the original specification is not described. The cone and the concave packing have both disappeared. In place of a cone the first claim has "an outer tubular connection attached to the tubing in such manner that the upper suction can move vertically," and has in place of the concave packing "a rubber annulus supported against downward thrust by the outer tubular connection." Each of the other claims is a marked example of the same attempt to expand a narrow patent and a narrow invention so as to cover a broad territory. The thing which was the subject of the original patent and the thing which it is desired to bring within the terms of the reissue are entirely dissimilar.

The important part of the Martin invention was—a series of flat springs arranged lengthwise in the form of a cylinder about a well-tube, the latter being divideded or made in two sections within the points inclosed by the springs and their ends connected by a coupling in such a way as to make a sliding joint.

The springs were surrounded by a cylinder of gutta-percha or other elastic material. The upper end of the coupling-tube was enlarged on the inside so as to form an inner circumferential rim which slides along the outside of the upper section, but is prevented from coming off the same by a rim surrounding the lower end of said section, and then the lower end which contains the packing is removed from the well.

The fourth claim of the reissue is the only one which is said to have been infringed. It is admitted that the other claims are an improper enlargement of the original patent, unless they shall be limited to the same construction of springs or leaves, in which case there was no infringement. The point at issue is whether the fourth claim of the reissue and the second claim of the original patent describe the same invention. For the purpose of thoroughly comparing the respective claims, I quote the first and second claims of the original patent and the fourth claim of the reissue, which are as follows:

1. In packing the tubes of oil and other deep wells, connecting the ends of the packing device or apparatus to separate or disconnected sections of the well tube, so as to inclose the joint within said packing device, substantially as above described.

2. Connecting such separate sections of the well tube to each other by means of a coupling one end of which slides on one of the sections, substantially as described.

4. In combination with the eduction tube of an artesian well, an elastic or flexible packing, a rim or shoulder upon the eduction tube, and a corresponding rim upon the packer support, whereby, when the eduction tube is removed from the well, the rim or shoulders shall engage with each other and withdraw the packer support, substantially as set forth.

The second claim of the original is for that portion of a packing device for tubes of oil wells which consists of separate sections of the well tube connected together by means of the described coupling, and does not describe any particular kind of packing. The claim has for its elements an elastic packing, separate tube sections, one being the upper tube and the other the packer support, connected together by the described rims or coupling. The fourth claim of the reissue is not an enlargement or expansion of the second claim of the original, but states in more clear and precise language what is contained in the inartificial language of the original claim. The infringing device would have infringed the terms of that claim. It must be remembered that upon this hearing the validity of the reissues as compared with the original patents is solely in issue. The novelty or the patentability of the various devices or parts of devices are not now the subject of consideration.

The defendant insists that if the complainant is entitled to a decree upon this claim it must be upon condition of a disclaimer, so as to limit the patented invention to that which was contained in the original patent and without costs. It is not now necessary to consider the question of costs, because upon a hearing of the facts the court may be of opinion that the invention of the fourth claim has no patentable novelty and that the bill should be dismissed.

Lining Petroleum Barrels with Glue.

Following is the decision of the U. S. Circuit Court on a bill for injunction in the use of liquid glue for lining petroleum barrels:

Letters Patent issued March 10, 1874, to Edward W. Leggett, for an improved mode of lining the inside of oil-barrels with glue, the claims for which were a process "wherein the glutinous material, instead of being produced by reduction from a previously solid state, is permitted to attain only a certain liquid consistency, and is then applied to the package and permitted to harden thereon for the first time," and "a barrel, cask, &c., coated or sized by the material, and by the mode or process whereby it is absorbed into and strengthened by the wood fiber," are void for want of invention.

This is a bill in equity to restrain the defendant from the infringement of reissued Letters Patent, applied for January 24, 1874, issued March 10, 1874, to Edward W. Leggett, for an improved mode of lining the inside of oil-barrels with glue. The original patent was dated October 21, 1873. The ordinary dried glue of commerce is usually made from the trimmings of skins, which come from slaughter-houses and tanneries, as follows: The skins are soaked in water and lime to remove the fat and grease, and are then thoroughly washed and exposed to the air, or may be treated with a solution of acid to remove the lime, for the presence of lime after it has performed its original office is exceedingly injurious to the glue. The stock is then boiled by the application of steam heat, and when the solution has been effected by boiling, the liquid glue is run into molds and allowed to set and form a jelly. This jelly is cut into slices, which are spread upon nets and dried. The drying part of the process is simply to bring the glue to a condition in which it will keep permanently and can be transported and be a merchantable article; for either liquid glue or jelly glue, unless mixed with antiseptics, quickly and easily attracts impurities from the atmoshere, decomposes, and is spoiled. In order to make glue a commercial article for general use, it must be dried. This part of the process is the most expensive, because the jelly glue is easily influenced by atmospheric changes, and when thus effected will not dry, but melts and becomes worthless. Before 1874 hydrocarbon oil barrels were prevented from leaking by pouring into them a sufficient quantity of hot glue, rolling the barrels and thus permitting a lining or coating of glue to be poured upon the inside of the barrels. The liquid glue for this purpose was made in the ordinary way by melting dried glue and heating the solution. The invention consisted in applying directly to the barrels hot liquid glue, or "glue soup," before it had been subjected to the cooling or drying part of the ordinary process of manufacture.

The patentee describes his invention in the specification of the reissued patent as follows:

"[It] consists in preparing, from any glutinous substance, glue soup, said soup being permitted to attain but a certain consistency, and then applied directly as a coating or sizing.

"In carrying out my invention I proceed as follows: Take any of the materials from which glue may be made, and proceed in the usual or any suitable manner for the manufacture of glue, until the soup has attained a certain consistency.

"This consistency must be considerably less than that which is required whereby semi-fluid, solid, or cake glue is to be produced, and while it is in this half-finished state, so to speak, it is applied directly to the inside of the barrel or cask, where, after due evaporation, it will be found that said cask or barrel is lined thoroughly and completely with the material, inasmuch as a pressure of steam generated by heat applied is sufficient to force the thin glutinous fluid or soup well into the

pores, fibers, and recesses of the wood, thus insuring a perfect linining.

"I am aware that barrels, etc., have been lined or coated with glue of commerce, when said glue has been subjected to a process of reduction by dilution from its original consistency to a sufficiently liquid state; but I am not aware of any process wherein the glutinous material has been permitted to attain only its proper consistency for purpose specified, and then applied directly, thus saving the time, labor, and expense heretofore employed by continuing the manufacture of the gelatinous soup until it has attained a glutinous condition, thus necessitating a reduction by diluting and reheating before it is fit for application, as set forth in this specification, traveling over, as it were, the same ground backward and forward two or three times, whereas, by my process, this trouble is entirely dispensed with, by operating as within described.

"This invention has nothing to do with the ordinary glue-lined barrel, but relates to a new and inexpensive mode or process of making barrels, casks, etc., better adapted to the purpose designed, by coating or sizing, as set forth, than by the ordinary means.

"Hertofore glue has been taken in its completed state as an article of manufacture, reheated, diluted, and then applied; but such a process necessarily carries with it all the expense of preparing the glue at first as an article of trade or commerce. My process contemplates taking the said soup when at a proper consistency and applying it to the inside of the package, permitting it to harden for the first time upon that surface.

"The distinguishing feature of this improvement may be found, on examination, to be the superior integrity of the lining by the use of soup glue. By its peculiar character it is more freely absorbed by the wood, penetrating into fiber deeper than by the ordinary mode. Hence the sizing or coating is not only upon the surface, but penetrates into the wood, thereby presenting a thicker covering to the action of the oil, and this sizing is not liable to be broken off or cracked in handling the cask, as part of the coating is absorbed into the fiber and cells of the wood, which gives additional strength to it.

"The claims are as follows:

"1. The within-described process of coating or lining the inside of barrels, casks, &c., wherein the glutinous material, instead of being produced by reduction from a previously solid state, is permitted to attain only a certain liquid consistency, and is then applied to the package and permitted to harden thereon for the first time, substantially as herein set forth and described.

"2. A barrel, cask,etc.,coated or sized by the material, and by the mode or process, whereby it is absorbed into and strengthened by the wood fiber, substantially as herein described".

The patented process has been very extensively used by the defendant. Such use commenced after the date of the patent.

The question which first and most strongly presents itself is the patentability of the described and patented process. Upon this question the plaintiff's counsel insist that a solution of glue formed in the course of the original boiling and a solution of glue formed by dissolving the dried glue are not identical; that the latter is subject to changes only partially understood, but positive and efficient, whereby the adhesive property of the gelatine is diminished; that although this was theoretically known at the date of the invention, and although jelly glue was, at the same date, so treated as to last without decomposition, the use of glue fresh from the tubs was unknown; that dry glue dissolved was the only thing that was used, and fresh glue from the boiling-pot was not a known substitute for dissolved dried glue in the lining of oil-barrels; that no one then knew or believed that it could be used for that purpose, but that Leggett made the practical discovery that glue in the boiling state, and before it was dried, made a more efficient and economical article for the uses of the oil-refiner than remelted dried glue, and that thus a new process was created, by which a large and expensive part of the old process was avoided. It must be regarded as proved that before the date of the invention practical experts believed that remelted dried glue was inferior in adhesiveness and binding qualities to hot and undried glue. Thus it was stated in "Wagner's Yearly Report of Chemical Technology" for 1869 (vol. 15, p. 657) that the adhesive and binding power of glue is greatly diminished in the process of drying in the air. Messrs. Wiedenhold and Plumer, two of the very intelligent witnesses on the part of the plaintiff, knew before the date of the invention that glue hot from the tubs was in the best condition and would penetrate better. It is not important to ascertain whether this inferiority is inevitable in the case of the best dried glue which had been only once remelted, because the frequent liability of glue to suffer deterioration in the process of drying, from one cause or another, is undeniable, and therefore the opinion of the experts was practically correct. While this inferiority was theoretically known, it is also true that glue hot from the tubs was not used, and that its advantages were not introduced to the public, except in the isolated instances to which reference will hereafter be made. The glue jelly manufactured by Stalling, near Dresden, in and after 1869, was a very different thing from the liquid article which is the subject of this patent. Stalling's article was a glue jelly capable of transportation, and was "extracted in a peculiar manner, entirely by treatment of bones with cold water under steam-pressure." The plaintiff, from the fact that inasmuch as the patentee was the first person who showed the public either to use or how to use the liquid article for the inside of barrels, by which a better result and a large saving of expense were effected, draws the conclusion that he is entitled to the benefits which the statutes confer upon first inventors. This conclusion would be correct if Leggett gave to the public the result of invention and did not merely give the commercial suggestions which would naturally occur to a person acquainted with the manufacture of glue. The manufacture of dried glue was a necessity, because the mechanic who has only the ordinary business of his calling must buy, rather than make, his glue. His business requirements do not compel him to be a daily consumer of a large quantity of the article, and it must therefore be purchased in a dry state. The use of hot glue as it flowed into the tubs was not practiced, because there was no occasion for such use; but when the time came that a manufacturer needed daily a very large supply of glue the suggestion of a change in the mode in which he should procure and use glue was made; but the novelty consisted in the suggestion that he should be his own manufacturer. There was no novelty in the idea of the superiority or economy of hot liquid glue, and so much of the claim of the patentee to the character of an inventor as rests upon the discovery of the superior integrity of the lining by the use of "soup glue" is fallacious. Liquid glue had never been manufactured before for daily use, simply because nobody needed a large daily supply, and the idea that the patentee exercised the genius of an inventor in first practically introducing the article to the public is without adequate foundation, for it was a business rather than a mechanical suggestion. The thought that the defendant (which was a large daily consumer) could profitably be its own manufacturer of glue came both to the patentee and to Mr. Plumer, who also subsequently communicated the same idea to the defendant; but neither is entitled, on that account, to be considered an inventor, but each is rather to be regarded as having prompt ability to seize upon correct methods of conducting a large business. It is also true that there was no invention in the application of liquid glue taken freshly from the tubs to the inside of barrels. The use of such glue came naturally, and in the ordinary line of thought, to Wiedenhold when the occasion came to him to line barrels. It came also to Baumann, before the date of Leggett's invention, when he was called upon to line neat's-foot-oil barrels in Peter Cooper's glue factory. Such use was undoubtedly occasionally practiced in that factory in other instances about the same time. The idea was the natural one which would readily occur to the intelligent mechanic in the factory. It is not strange that it did no occur to oil refiners, for they were not glue makers. It is not strange that it was not made public, because the occasion had not arrived for its development. It would be useless to the oil-refiner who used but a few barrels daily, for he could not afford to manufacture glue; but when the occasion arose, the proper method of doing the business naturally presented itself to the mind of a person familiar with glue manufacture.

I do not consider whether an anticipation of Leggett's improuement is clearly proved by the facts which took place in Cooper's factory; but I place the decision upon the lack of patentable invention in the thing patented.

The bill should be dismissed.

Petroleum Lands in Reserve.

One of the oddest men in the oil country, or anywhere else for that matter, is Ed. E. Clapp, of President, Pa., seven miles above Oil City on the Allegheny river. He is a bachelor about 60 years of age. It is sometimes said he is the richest man in the oil country, and this estimate of his wealth is based on the fact that he owns 8,000 acres of land right on the border of the rich developed oil territory. Wells drilled on one edge of this tract has proved absolutely that some of his property is valuable petroleum lands, and the supposition is that the great bulk of his 8,000 acres is equally good. If this be the case, he is not only the richest man in the oil regions, but he is a veritable Monte Cristo. One of Clapp's peculiarities is that he will not sell or lease an acre of his lands, nor will he operate it himself for oil. He has been paying heavy taxes on it for twenty years, and on some of it perhaps for a longer time. The land is wholly unproductive as it lays. None of it is good for agricultural purposes. A large part of it is timber, but, as he never cuts a tree, he derives no income from it from this source. Six thousand acres of this land lies in Venango county, and is as wild and unbroken a section of country almost as there is in the state, and yet without there being any possible use for them he has built fine roads and drives all through his lands. Many of these roads are built through unforbidding sections and consequently at great expense. Road building has long been a hobby with Clapp. He has his own theory about road building. He is his own engineer and never lays out a road above a certain very low grade, and consequently the highest of the mountainous sections of his lands are reached by easy grades. Some of these roads wind around the hill for miles until the summit is reached. None of these fine roads go to any place in particular. Some of them end abruptly in the woods and have remained in this uncompleted condition for years, while he goes ahead building roads in other parts of his forest lands. All these roads start from Clapp's private residence at the river, a building which in itself illustrates the peculiarities of the builder.

Clapp builds his fine roads mostly by employing men who come along looking for work, and as his generosity in this particular is widely known he has a great many applicants. It is thought by some that he builds these roads to give employment to idle men, and for no other reason. Not wishing to give money direct and receive no equivalent, thus inviting imposition from unworthy persons, he sets them to work quarrying stone and working on his roads. Be this as it may, he has got many miles of magnificent driveways through a large scope of country that is almost inaccessible. Nearly all of these roads cross wild streams, and a great deal of masonary is necessary for bridge building. The stone-work in one of these bridges alone cost him $5,000. The stone was all quarried on his own land, and this simply represented the actual labor. Along his roads at intervals he has erected fine watering-troughs for horses. These are put up in the most approved manner. All are built high enough so the horses can drink without the driver getting out of the vehicle to let down the check-rein. Some of these troughs are carved out of solid rock. The first one of these that the traveler encounter in ascending the river hill from Clapp's residence has a large sign erected some sixteen feet above it, bearing, in large black letters, the appropriate legend: "Horse's Delight."

Many of the watering troughs are inscribed in some such manner. Clapp believes in plenty of cold water for both man and beast, and will allow no intoxicating liquor to be sold or drank on any part of his big scope of country if he can help it. It is often the case that there is not a horse passing over these roads for many days, and perhaps weeks, at a time to drink out of these fine troughs, but there they stand, all the same, constantly full and running over with pure mountain spring water, ready for any living thing that thirsteth. An occasional deer is still seen in that section, and last Winter a Pittsburgh hunter got a shot at a fine buck as he stood drinking from one of these troughs.

One of the queer things which Clapp has done, and for which his most intimate friends can give no explanation, was the purchasing of a store filled with merchandise, locking it up just as it stood, and never allowing it to be opened again for business. This was eight or ten years ago, and the goods are still in the building, some $3,000 worth, and all of it molding and rotting away. A man who clerked in the store at the time it was so strangely locked up has told the writer all that is known of the affair. The store is located at President, not far from Clapp's residence. It was the only store for several miles around, and the country people came long distances to trade. The business done was light, because the country is very sparcely settled, there not being a house in several miles. Still, there was some business all the time, and it is not thought the store was closed on account of the light trade. It would be more like Clapp to keep it open for the benefit of the public, although he lost money by so doing. This seems to have been the spirit that moved him in his building of so many miles of free roads. He had a partner in his store, and if there was any trouble between the two men it was not apparent. One morning he came into the store and said to the clerk:

"I have bought out my partner in the store and am now sole proprietor. Nail up all the windows and doors and give me the key. We will not sell any more goods."

The clerk did as he was instructed, and the store remains in that condition to-day, with the goods rotting on the shelves inside. Clapp is not a man who tells his affairs to anybody, but quite the reverse, and understanding him thoroughly in this respect, no one is likely to ask him any questions in regard to the closing of the store, and it is not likely that any one will ever know any more about it than is known now, which is practically nothing.

Although Clapp had spent hundreds of thousands of dollars in building roads from President, the place consists virtually of one house, and that the house in which he lives. There are perhaps half a dozen cheap houses in the vicinity, together with the barricaded store, but the only house of value is Clapp's residence. This is an ordinary appearing country house, frame, painted white, and two stories high. It is old-fashioned, even to the porch extending along the front, and has the appearance of a house that cost not over $1,000 to build. It is a house, however, that cost many thousand dollars—how many nobody knows. The house stands on the bank of the river, in a very conspicuous locality, and is sure to be noted by the traveler along the Alleghany. There is a cellar under the entire house, and the masonry in the walls is something marvellous. Clapp will show an occasional visitor over the house, but in his ordinary moods he is not particular to gratify anybody's curiosity about it. Indeed, if he suspected any caller of any curiosity in the matter he would not be permitted to see the house under any circumstances. To all questions as to the cost of the house he has one formula: "This house is all paid for." He is known to have told one visitor that the masonry in the cellar walls cost him $10,000. Clapp's love of plenty of pure water is seen in this house, where there is running spring water in every room. The water is brought down from the hills back of the house by a system of pipes, and the supply is never failing, winter or summer.

It was said that Clapp refused to sell or lease any part of his big tracts of land. This is not literally true. Of his 8,000 acres he did some time ago lease 200 acres to an oil man. A well or two was put down on these 200 acres, and the result was satisfactory. These wells "test," as the term is, a large scope of territory, and prove it to be good for oil purposes. Notwithstanding this he refuses to sell or lease any more, and regrets that he gave this lease. The result of these wells has brought oil men down on Clapp by the hundreds to secure leases, but he refuses to lease or sell on any terms. The Standard Oil Company offered him $750,000 for a part of his President tract, but he declined to accept it. He will put no price on the whole or part of it, but simply says it isn't for sale or lease. To one man's inquiry as to what he would do about giving him a small lease somewhere, he said:

"Well, I'll tell you. I'll do for you just what I did for a Titusville man who was here to see me this morning."

"What was that?"

"Nothing."

Oil men have given up all hope of getting anything from Clapp, and have left him to guard his hidden mine of wealth. He has said that when oil gets to be $10 a barrel he will open it up himself, but this means it will never be opened up while he is alive.—*Globe-Democrat.*

Petroleum Outlook in Pennsylvania.

Prof. Charles Ashburner, the geologist, exhibited to a Pittsburg *Dispatch* reporter a proof copy of a new oil statistical chart just prepared by Prof. John F. Carll, assistant geologist of the oil and gas regions for the Geological Survey of Pennsylvania.

"This is one of the most instructive statistical charts," said Prof. Ashburner yesterday, "that has been lately prepared exhibiting the condition of the oil production of Pennsylvania. The deductions of these statistics inevitably lead to one point, viz., that the oil fields of the State are being rapidly depleted. This is a fact which cannot be denied by the most casual observer of Prof. Carll's work. For instance take the annual statistics for the past 13 years of all the oil fields as follows:

	Shipments.	Production.	Difference.	Stocks.
1876.....	9,740,461	8,968,906	771,555	2,824,739
1877.....	12,739,902	13,135,671	395,769	3,127,837
1878.....	13,879,538	15,163,462	1,283,924	4,615,299
1879.....	15,971,809	19,741,661	3,769,852	8,470,490
1880.....	15,590,060	26,027,631	10,439,571	18,928,430
1881....	20,146,726	27,376,509	7,229,783	26,019,704
1882	21,883,09[illegible]	30,467,000	8,583,908	34,596,612
1883 ..	22,094,612	24,226,864	2,130,252	36,800,000
1884	2,350,000	23,333,844	166,156	36,800,000
1885	23,900,000	20,891,992	3,008,008	33,800,000
1886	25,890,000	25,080,460	809,540	32,990,460
1887 ...	26,280,000	21,286,560	4,993,440	27,997,920
1888	25,850,000	16,126,580	9,723,420	18,273,600

"Of course during the last two years the production fell off largely on account of the so called shut down movement against the drilling of wells, but still to this movement has been enormously attributed by persons; who have not taken the pains to study the pains to study the subject in detail, the decrease in the total annual production and the consequent diminution of stocks is much more largely due to the rapid falling off in the production of existing wells and the much greater proportion of dry holes obtained to the total number of wells drilled, and also to the smaller production of the new producing wells obtained. This is shown in the following table for the past ten years:

Year.	Number of wells drilled: Production.	Dry.
1879.....	2,657	141
1880.....	4,060	143
1881.....	3,681	167
1882.....	3,085	178
1883.....	2,686	263
1884.....	1,939	256
1885.....	2,331	350
1886.....	2,941	584
1887.....	1,268	426
1888.....	1,145	385

"For the 13 years included between 1875 and 1888 the black sand districts of Bradford in McKean county and the Allegheny district in New York State produced in the aggregate 166,466,000 barrels of oil. In June, 1882, these districts produced an average of 75,000 barrels per day, whereas in December, 1888, they only produced 20,680 barrels per day, and the oil pools of all the 'black sand' district are being rapidly exhausted. Unless the new white sand pools of the southwest district of Pennsylvania can be depended upon for increased future production, the prominence of the Pennsylvania oil pools in the production of the world will not play as important a factor in the past."

Petroleum Operations in the Washington Field.

A correspondent writing to the *Derrick* from Washington, Pa., says.

To one dropping into the Oildorado just now the halcyon days of old Oil Creek, Pithole and Tidioute are forcibly revived. Of these old fields, Washington presents a facsimilie. Stimulated by the recent gushers the drill is being pushed regardless of the sad consequences that usually follow these spasmodic excitements, and many will learn with sorrow "all that glitters is not gold," "nor oil don't gush from every hole." Operations in Washington unquestionably, have reached their zenith. Yet, in the face of this statement, the outpnt for the present month, it is expected, will be greater than July's production. This is accounted for by reason of the big wells completed. The old wells are declining, and from Washington to Taylorstown the territory shows drainage. Just outside of the town limits is a veritable forest of derricks; the meditative and philosophic mind naturally wonders how the operator is ever to get his money back again.

Just now the cry is "West Virginia or Bust," and thousands of acres have been leased, while many wildcat wells are being drilled in all portions of this State.

Many of the old-time operators and contractors are here. In fact, the woods are full of them, and many of them who made their advent into this field on their uppers, are now out of the soup, and some with handsome fortunes. Among those who come under this category, we mention a few. There is Joe Elsworth and Joe Preston, who had hard luck contracting in the Bradford district, but during their three years' stay here have made $75,000 and $65,000, respectively. Elsworth is the proud owner of seven wells with a production of 500 bbls. a day. Preston has sold out his interest and is now enjoying the bracing and salubrious sea air, listening to the roar of old ocean at Atlantic City.

Billy Graham is another of the boys who drifted here from the Allegany field about the same time, and commenced contracting. He finally "struck it rich" on the Robert Knox farm, and at present is interested in 25 or 30 wells, worth from $40,000 to $50,000.

Tom Alexander is another of the gang from the upper country. He has been here about 3½ years, and has managed to accumulate a little fortune. Besides his production he still follows contracting.

Tom Flynn came from Macksburg when the excitement broke out, and for some time worked by the day, but finally caught on in the Taylorstown field on the White farm. He has an interest in eight or nine wells, and is worth at least $10,000.

Gibson Giles was the first to emigrate from Bradford and has the honor of drilling the Hess Gasser, which was the first well put down in the Washington field. He has made a small fortune contracting and is also the happy owner of a big interest in the Acheson gusher. His check is good for $50,000.

Four years ago the Hart Bros. left the Butler field and began the contracting business and made a nice little stake which they dumped in an unfortunate speculation. Daunted at no obstacle they commenced again at the bottom rung and made their first strike in the Taylorstown district on the Noble farm. They are now well heeled, having a good production besides 400 acres of available territory southwest of town: they are worth in round numbers $100,000.

Fred Porter is not the least conspicuous among the hungry crowd that made their wad here. With true oil region grit he began his career by days work, and now has seven wells with a nice production, and is estimated to be worth $35,000.

Ed. Clark a Bradford boy has also been successful. He has followed the vocation of a contractor and has made a fortune of $30,000.

Dave McKain an all round old timer, is here too. Dave, in his circuit of the oleagineus world has seen many ups and downs, but his star is now in the ascendent. He is one of the most prominent contractors in the field, and is now drilling two wells on his own hook, which are located in blissful proximity to the big gushers.

Petroleum as Fuel.

The heating capacity of petroleum when fully burned is equal to about 21,000 heat units per pound, or say fifty per cent. more than coal. But owing to the ability to burn it with less losses, it has been found through extended experiments by the pipe lines that under the same boilers and doing the same work, a pound of petroleum is equal to 1·8 pounds of coal. Urquhart's experiments in Russia with 140 locomotives for the space of a year, gave nearly the same result or the equivalent of 1·756 pounds, while experiments on the New York Elevated Railroad showed a value of 1·785. According to these experiments, oil at $1·00 per barrel is equivalent to coal at $3·75 per ton and making allowances for various economies in the handling and storage of oil, in the carting of ashes, in grate bars, etc., oil at $1 00 per barrel is as cheap as coal at $3·26 per ton. This high effieiency would not appear to be realized under general commercial conditions and the estimate of the Standard Oil Company that allowing for incidental savings, 173 gallons of crude oil are equal to a gross ton of coal, would appear to more nearly represent results in general practice.

The subject of burning fuel oil is believed by some to have hardly passed beyond its first stages. The ultimate result is expected to be the burning of it in the form of gas. This seems to be in line with the trend of modern practice in other directions. Such as in the Siemens-Martin process of making steel where the fuel is first converted into gas before it is used for heat. Aside from the fact that the conversion of oil into gas could be carried on at such a distance from the factory that all danger from its use could be obviated, the application of it could be better controlled and as liquid fuel can be more readily converted into heat than solid, so fuel in a gaseous state can be used still more advantageously.

The plant for burning fuel oil embraces a storage reservoir and usually a smaller tank containing a supply for immediate consumption. The location of the storage tank and the methods of conducting the oil to the furnaces naturally differ, according to circumstances. Except where small quantities of oil only are used, a tank or storage reservoir is usually located near the railroad track at a safe distance from the property, where the oil, brought in tank cars from the West, can be emptied directly into it. The cars contain from 3,500 to 6,000 gallons each and the reservoirs are made to hold from one carload up, their capacity ranging from 3,500 to 18,000 gallons of oil. In the eyes of underwriters these tanks constitute the great danger to the property entailed by the use of petroleum fuel. To avoid the danger which, if the tanks were on a higher level than the buildings, might result from the oil running down into them, in case the tanks should leak or get on fire, it is required that these storage reservoirs shall be sunk into the ground, so that the level of the oil will be lower than the surrounding buildings, or else that the storage reservoirs shall be surrounded by an embankment or wall capable of holding the contents of the reservoirs, so as to prevent the oil from reaching buildings in case of overflow, leakage or bursting, which are the chief dangers to surrounding property apprehended from the presence of such a body of oil. Crude or reduced oil when stored in tanks has such an attraction for lightning that the possibility of their being struck and set on fire must always be considered. Reduced oil is much safer than crude oil from having the volatile and explosive properties driven off and is, perhaps, more economical.

The oil is conveyed to the buildings either by gravity or pumping but in either case it is generally carried to a supply tank holding anywhere from a few gallons to a day's supply. In this latter case the large reservoir is drawn on but once in twenty-four hours. From the supply tank the oil is fed to the burners either by gravity or suction. If by gravity, air pressure is usually introduced into the supply tank to insure steadiness of feed. Danger, however, lurks in this gravity flow from the auxilliary tank. Should the governor fail to act and the tank overflow or a pipe burst, the results might be serious. For this reason it is considered desirable that the supply tank should always be lower than the burners and that the oil should be drawn therefrom by pumps or suction when in case of accident the oil would flow back to the tank and away from the burners.

When first introduced the cost of using oil was increased by crude and wasteful methods of burning. The burners, of which there are a great many styles on the market, are devices for consuming the oil in the form of spray mixed with air or steam, and practically producing perfect combustion, so there is no gas, smoke or soot attending it. Some of them heat the oil so that it becomes vapor before it is burned, but heating the oil, it is said, will result in the pipes getting clogged with tar and coke. By the turning of a valve a petroleum fire can be regulated and held under perfect control, and steam and heat can be kept at any desired point. Much more uniformity is thus attained than by the use of coal and wood, and a more steady pressure of steam can be maintained, which is advantageous when regularity of speed is desired or essential. By simply turning a valve the flow of oil ceases, the fire is instantly extinguished, and there is no waste of fuel when the work is done.

In the aerated system of burning petroleum the pressure of air used is from fifteen to twenty-five pounds according to the work required, the higher the degree of heat to be obtained the higher the pressure needed. The auxilliary tank is fed by pumping as usual. A gouernor in the tank will shut off the steam from the pump when the oil reaches a certain height and prevent it from overflowing, but to avoid all danger from accident, the tank is so placed that the level of the oil will be two inches below the line of supply to the boilers. When the storage reservoir is above ground the auxilliary tanks and pumping may be dispensed with.

From the tank the oil flows to a point from one to thirteen feet below the level of the furnaces, according to their location. From this point the oil is drawn out through the burner on the following principle: The compressed air enters the supply pipe from the top and the oil from the bottom; from the jet of the burner a small tube within the pipe leads down to the oil supply. A lever being pulled down the compressed air is admitted, which finds a vent through the jet of the burner; if the valves are wide open no combustion ensues. By turning a wheel the smal tube is brought up close to the orifice of the jet. This impedes the escape of air, produces a back pressure on the volume of oil in the lower end of the pipe, causing it to rise in the tube up to the level of the burner, where it is sucked out by the air which escapes through the jet. The oil and air are cold when leaving the point of the burner, the orifice in which is from ¼ to 1-32 inch in diameter, according to the work required.

As the oil leaves the end of the burner it is atomized very fine and passes through a V shaped firebrick or crucible opening about 8 inches long. This opening is at a white heat and has the same effect on the areated oil as if it was injected into a retort. i. e. it reduces it to a gaseous state in which condition it enters the combustion chamber. So perfect is the combustion that in some metal working shops no chimney or other outlet is provided for the escape of smoke or gas from the furnaces, the vent necessary to secure draft opening directly into the room. To supply a 50 horse power boiler a three-quarter inch pipe is sufficient for the main and should be reduced to one-half inch as it connects with the burner.

For a small plant the nozzle of the jet of the burner should be half an inch in diameter with the orifice of the oil tube about one-sixteenth of an inch. This plant will use about seven gallons of oil every ten hours, running with eighteen pounds pressure and will consume three cubic feet of compressed air per minute.

The claim of economy for the areated system is that to atomize oil with steam makes a considerable draft on the boiler. The expense for the air is simply the cost of compresing it, which entails a less consumption of steam. When the method of atomizing with steam is employed in order to start a fire in the morning, it is necessary to have an auxiliary boiler to provide steam to start the atomizers under the main boiler, whereas, with the areated system, the compressor can be connected with a storage tank, which will contain air enough to start and maintain a fire until steam is up in the boiler.

Petroleum oil or its products, naphtha or gasolene, are employed to a considerable extent for miscellaneous purposes in various manufacturing industries where steam can be had for vaporizing, such as heating irons in hat factories. Among the glass workers oil has been used in the "glory holes" successfully as regards economy, and by the metal workers it is used as the source of heat in forges, rivet furnaces and in tempering.

Aside from the danger from the storage reservoir the chief danger from the use of oil lies in the danger of the overflow of the auxiliary tank and many devices are employed to insure safety in this respect as well as to regulate and economize the flow of oil. Then the flow to the boiler, whether from the storage reservoir or auxiliary tank, is by gravity, there is also danger of leakage of the feed pipes near the boiler, resulting in explosion. On the point of safety it is best to avoid gravity flow under any circumstances.—*Boston Com. Bulletin.*

Cascara Sagrada.

It is now about twelve years since sagrada bark became a recognized article of trade, says the *Chemist and Druggist*, its first introduction among the drugs of commerce being due, we believe, to Messrs. Parke, Davis & Co., of Detroit, U. S., and it was first brought under the notice of the medical profession in this country two years later, on the occasion of the British Medical Association's meeting at Cork in 1879. The new drug at first met with a very cold reception in Europe, being looked upon more as an American quack medicament than as a serious remedy. The circumstance that its introduction into therapeutics was fathered by Dr. Bundy, an American "eclectic" practitioner, who recommended and pushed it as a kind of competing remedy to Grindelia robusta, which enjoyed the sponsorship of one of Dr. Bundy's professiondl antagonists, did not tend to win greater fame for sagrada bark among therapeutists in this country. In spite, however, of its parentage the drug has made its way in the world on its own merits; and at present the total consumption of cascara sagrada is believed to represent 350,000 lbs. annually, at least, and rather more than one-third of the total is said to fall to the share of European countries, And it is probable that this large demand only represents a small fraction of that which will prevail a few years hence, unless prices should be driven up so high as to interfere with the free consumption of the article. Among the medical profession the drug constantly gains new friends, while the comparative success which has attended the endeavors of manufacturing pharmacists to cover its disagreeable taste must facilitate the extension of its use as a remedy. It is therefore all the more desirable that the trade in cascara sagrada should be placed upon a satisfactory footing, that some reliable data should be forthcoming regarding the avilable supply of the bark and the exact area of the distribution of the trees in North America and that the moot points regarding the commercial varieties of the drug and their respective merits should be fully elucidated.

As regards the first-named point, we know, broadly speaking, little more than the Rhamnus Purshiana grows freely in the northern part of the State of California, say from 39° N. L. northwards, and along the Pacific slopes of Oregon and Washington Territories. Whether the trees extend beyond the United States border-line into British Columbia does not appear. It will thus be seen that the area whence cascara sagrada is known to be procurable in commercial quantities is a rather narrow one. It is even reported that the large growth of the demand has caused the trees in the southern section of that area, viz., the State of California, to become very scarce already, so that supplies have to be procured from the more difficulty accessible districts in Oregon and in Washington. The present demand must necessitate the peeling of about 25,000 to 30,000 trees every season, and the inconsiderate manner in which this work is accomplished by the American bark-gatherers renders it likely that a large proportion of the trees do not survive the operation. The principal part of the area whence the cascara sagrada is obtained falls in those districts of the United States which are still in a more or less unsettled condition, and it is, therefore, perhaps impossible to prevent the reckless destruction and partial extermination of the trees. The bulk of the trade in the article is in the hands of a few large houses in California, Michigan, &c., and it would be distinctly to the benefit of the drug trade at large if it could be emancipated for this important article from the control of a few big wholesale firms and speculators. With respect to the question as to the genuineness and therapeutic value of the various kinds of bark, great divergency of opinion exists. As far back as 1884, when the demand for cascara sagrada from Europe first became a factor of some importance, a distinction was already made between "genuine thin" and "doubtful thick" bark by the American dealers, and we find the former quoted in a price list of that time at 11½d., and the latter at 8d. per lb. Since then there has been an almost uninterrupted controversy going on as to the respective values of these barks, some authorities asserting that both were equally efficacious, and others that the "thick" was of no use at all. The same difference of opinion has arisen with regard to the necessity of keeping the sagrada bark for at least a year before administering it as a medicine, and on this point we think there is rather more reason for disagreement than on the previous one. The view has lately become more extensively accepted that the "thick" and the "thin," the "summer dried" and the "winter dried" bark are exactly equal as regards medicinal properties, and we do not think there is any appreciable amount of spurious cascara in the market, the difference between which and the true bark is not obvious enough to deceive no dealer accustomed to handle the drug. With regard to the properties of newly-cured bark a paper of some importance has just been read by O. Schreiber before the Pharmaceutical Society of Prague, in Austria. The author who has paid special attention to the therapeutic properties of the bark, points out that the British Pharmacopœia, which until recently was the only one in which cascara sagrada had been incorporated, does not require the bark to be of any special age, nor does the newly revised Australian Pharmacopœia lay down such a requirement, and he ascribes this omission as probably due to the fact that it takes at least six months for the bark to reach the European markets after it has been gathered, so that it would have time enough to get perfectly dried on the way. We can scarcely believe this to be the true reason why no age should be officially asked for, for it could have been easily foreseen that with the increased commercial importance of the bark the time betwen the harvesting and the arrival in Europe would be greatly shortened. In fact, we think we are right in saying that the first of the new season's cascara has been distributed in Europe this year within two months of being peeled. Mr. Schreiber further points out that the Dutch, Norwegian, and the United States Pharmacopœias require the closely-allied franguia bark to be at least one year old before use, while the Russian Pharmacopœia even goes so far as to demand two years. As regards frangula bark the presence of a ferment in the newly-cut bark, which causes griping stomachic affections similar to that created by unripe fruit, &c., by the formation of lactic acid in the stomach, is an admitted fact, but its existence in cascara sagrada does not yet appear to be beyond doubt. With regard to the respective values of the bitter and tasteless extracts of cascara, Mr. Schreiber declares that, according to experiments made by himself in conjuction with a physician upon a large number of patients in the Prague hospitals, he has come to the conclusion that there is no truth in the assertion that the extract when rendered tasteless is weaker in its action than the bitter extract. The action of both varieties, on the contrary was exactly similar, both acting satisfactorily in doses of 1 to 2 grams daily, excepting in such acute cases, where the dose had to be increased to from 6 to 8 grams.

PAINT MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

TUESDAY EVENING, Sept. 3, 1889.

White Lead, Zinc, Etc.

Pig lead has received a little more attention from consumers the past week, as holders have shown some inclination to dispose of stock, but the aggregate business has been small, and almost wholly devoid of speculative features. Sales of about 350 tons are reported at 3 82½@3 90c, the market closing with the latter figure asked for spot, or early delivery. Messrs. Everett & Post writes us from Chicago on the 31st ult: "The waiting policy outlined in our circular of last week has continued, and as a consequence the tendency of values has been downward, though but little lead has been offered or sold at any of the centers. The stocks of lead at New York, Chicago and St. Louis remain unchanged, and outside of this small accumulation (which, apparently, is not for sale at current rates)there is actually no surplus to draw from in event of an incrersed consumption; the position of the refiners is to sell ahead thirty days a principal portion of production, so that from that source, except for futures, but little lead can be had. August has been an unprecedentedly dull month among manufacturers, which accounts for the limited transactions, but of Sept. much is expected, and although we may see lower values yet by the middle of the month we look for much better prices all around. The Mexican ore question is still unsettled, but the recent rulings are having a very noticeable effect on the imports, and another month will see a further decrease, unless some change is made. Reports from the border estimate a falling off in imports of at least 50 per cent." The Chicago market on the 31st was quiet at 3 70@3 80c as to holder. St Louis dull at 3 62½c.

White lead continues to move into consumption at a satisfactory rate, and dealers and corroders look forward to a good business as fall advances. Reports that a combination of jobbers has been formed for the purpose of manufacturing white lead are again in circulation, but are without foundation in fact. The matter is treated at length in our editorial columns. There is nothing new to be said regarding prices, etc., they remaining as follows: 7½c for lots of less than 500 pounds. A rebate of ½c per pound will be allowed on all purchases of lead of 500 lbs and over if paid within 30 days of date of invoice, but not otherwise. Terms, on lots of 500 lbs and over, 60 days' time, or a discount of 2½ per cent will be allowed for cash in fifteen days from date of invoice. To buyers of a total of ten tons of pure lead during the year, counting all brands, an extra rebate of ½c per lb will be paid, payable July 1st and December 31st, provided deliveries have been made of such quantity prior to each of those dates.

American oxide of zinc has continued in fair demand, with values ruling steady but unchanged. French zincs have ruled stationary, the business at hand being fair for the season.

Dry Colors.

REDS.

But little of fresh interest can be noted in the general market for the several pigments. Rumor had it that a combination was to be formed among the different manufacturers, but this is denied by them. Trading for the most part has continued of the usual jobbing proportion, there still being a total absence of life evident. Values have not been altered in any instance, being quoted steady at previous prices. English venetian reds have found a moderate outlet in a jobbing way, but no special business has been passing, and prices have been without fluctuation. Domestic grades have been in the usual jobbing demand, and all wants have been supplied with ease, at previously quoted figures.

Orange Mineral—Is wholly unchanged from a week ago. The spot supplies are reported rather light, with a continued fair demand prevailing, though the trading is held somewhat in check by the absence of available supplies.

Cobalt Oxide has continued to sell in jobbing quantities to a moderate extent, with prices without alteration, and the market bare of interesting items.

Red Lead and Litharge being held at combination figures, show no change from a week ago. The trading has not increased in volume to any appreciable extent, still being of moderate proportions, while nothing has occurred to disturb the even tenor of the market.

Carmine has been enquired for to a moderate extent, the trading being entirely on the jobbing order, with prices identical with a week ago and ruling steady.

Quicksilver vermilion has ruled exceedingly steady, owing to the high asking rates for quicksilver. The demand has been moderate and of a jobbing character entirely.

BLUES.

The general tone of the market for blue pigments is identical with that reported in our previous issue. The demand has only been fair,and for parcels to fill present wants, no special orders for future delivery having, as yet, been placed. Prices have ruled steady, but are without alteration, and there has been no effort to change them either way, during the interval.

YELLOWS.

There have been continual sales of N. M. B. ochers for future delivery at full price. The spot stocks of the standard grades are rather light and are required. French washed have been held steady and are selling in the regular way at previous figures.

GREENS.

There has been no material change in the position of the market for green pigments since our last writing. Trading has been rather moderate and in sufficient quantities only to fill present requirements, while the ruling figures of a week continue to prevail. Paris has been rather quiet, consumers apparently being plentifully supplied at the moment for present wants.

Miscellaneous.

Sulphate of Barytes—There is a fair jobbing business progressing. Dealers in the best grades of goods are rather short of supplies at the moment and the chances are that prices will be maintained for some little time to come. As present figures are said to be not very remunerative it is hoped that the scarcity of these qualities will be conducive to higher prices.

Chalk has been without interest. There have been no further arrivals and no supplies are reported afloat. Recent advices from

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WM. KNAPPMANN & CO.,

Manufacturers of all Grades of

Whiting.

SPECIALTIES:

American Paris White and Prepared Chalk

E. P. EARLE, Sole Agent, **71 Maiden Lane, New York.**

ADAMANTA

-V-A-R-N-I-S-H-

Strictly Neutral---Melting Point about 400°---For Durable and Brilliant VARNISHES, JAPANS, Etc.

Hardened and Acid-free RESINS. **RUBBER Substitute.**

GUM

For Sale by ADAMANTA MANF'G CO., 17 MASON BUILDING, BOSTON, MASS.

Established 1856.

GLUE

Manufactories of GLUE & GELATINE of every description,

FOR ALL TECHNICAL PURPOSES.

Rich, Strong and Pure. Specialty: GROUND GLUE.

PHILIPP SCHNELL, - - - KASSEL, GERMANY.

PAPER, GLUE, and GELATINE Works in HAN MUNDEN; Branch in Paris.

1888, Melbourne and Barcelona, 2 Gold and 2 Silver Medals. Awards: 1862 London, 1867 Paris.

Correspondence to KASSEL Solicited.

COLORS FOR GRINDERS AND MANUFACTURERS.

LOW PRICES. **BEST QUALITY.**

JOHN LUCAS & CO.,

Philadelphia: 141 & 143 N. 4th St: 332 to 350 Race St. **WM. E. LUCAS, 89 Maiden Lane. New York.**

London are to the effect that "no vessels are loading with the article for any United States port." They further state that 6s 6d has been offered for New York but captains will not consider chalk at all, as some of the last shipments have been forced to seek a consignee upon arrival."

China Clay—Owing to the serious delay in securing vessels at the clay ports there has been some apprehension that the market will be about bare of the better grades in a short time. In fact it is said that in some quarters a scarcity already exists and it is thought that as an expedient, some small lots will have to be shipped by steamer. The lower qualities are in full supply but no concessions have been granted in prices as there is a good inquiry, for the season, a fair jobbing trade having transpired since our previous report.

Talc has ruled entirely without feature, the demand being exceedingly limited, with prices unaltered.

Terra alba—An ordinary jobbing trade has been accomplished during the interval. The conditions existing at the date of our previous writing continue to prevail. The importations have a depressing effect on prices, and the market has not quotably changed, the article being quite sluggish.

Whiting has sold in a fair jobbing way for consumption, but no special trading can be reported, while prices have not undergone any alteration.

Glues.

A steady and satisfactory demand is noted, with the effect of clearing the market of some old stock. Prices cannot be quoted as higher, though there is a firmer feeling in domestic grades. There is no change in the prices of foreign makes, which continue in full supply.

Glass.

WINDOW GLASS.

In the market for French window glass there are no features of special interest to note. Prices are maintained and a fair demand is reported. Dealers in American glass are satisfied with the results of the past month, and look hopefully forward to increasing demand as the season advances. Prospects are favorable for a large consumption, but hardly as much can be said of prices. The legal time for the expiration of the summer stop, according to the law of L. A. 360, expired Aug 31, and, says the *American Commoner and Glass Worker*, the manufacturers who sign the scale of wages by that time will be privileged to go to work as soon as they see fit. The scales were sent to all the preceptors a week ago, and have been handed to the manufacturers, and the reports are that a number will sign, in addition to those already published. There have been no new developments in the wages controversy this week, neither side making any move toward another conference. It is pretty well settled now that no general start up will occur before September 15, either in the West, North or East, but it will probably come to pass between that date and October 1. The wage committees East and North have done nothing either, as they too are waiting for the manufacturers to get ready to go to work. This will come around in good time, and the factories start as of yore about the usual time. It is a pity though that the trade could not have ten months work this year instead of nine, as will be the case.

PLATE GLASS.

The situation in the plate glass market is unchanged. There is a good healthy trade in progress and prices are fully maintained.

Proposed Incorporation of the Flint Glass Trade.

A dispatch from Pittsburg states tha Messrs. Bryce, Ripley & Heiser, the committee appointed by the flint glass manufacturers to devise a plan for the formation of a combination, are gathering data and will report at a meeting to be held the latter part of next month.

The committee has found a unanimity of feeling existing among the flint glass manufacturers in favor of the contemplated movement. The general impression among manufacturers is that sufficient progress will be made by the first of next year to effect the organization at that time.

The idea which will be embodied in the new movement will be to form a chartered corporation, which will have one person at its head who will have control of the business. It will be his duty to fix prices, and the income from each factory will be put into a general fund and the profits will then be distributed. Each firm in the corporation will receive profits in proportion to the amount of capital which it has invested.

The operation of the factories will be the same as at present, under the direct management of the owners, but the business of the trade will be in the hands of the corporation.

410,096. INSECTICIDE. Issued Aug. 27, 1889.

Claim.—The herein-described insecticide, composed of the followiug ingredients: spirits of turpentine, carbolic acid, (preferably crude,) benzine, bisulphide of carbon, and brimstone, substantially as specified.

Red Oxide of Iron.

Warranted Unequalled in Body, Strength and Fineness.

70 Per Cent. Iron and Free From Sulphur.

Grinds smoothly with 18 lbs. oil to 100 lbs. oxide.

CLINTON RED HEMATITE,
For coloring Mortar, Brick, Tile, etc., equal to Turkey and Florentine Red.

The Clinton Metallic Paint Co.,
CLINTON, N. Y.
229 PEARL ST., NEW YORK.
Agents for Mortar Color in Boston:
FISKE, COLEMAN & CO., 62 Congress St.

JONES & CO.'S
Paste Oil Stains
Save Consumer 50 pr. ct.

ONE POUND MAKES ONE GALLON.

This stain reduced in spirits turpentine, four to twelve quarts to the pound, without dryer, produces the most delicate natural cherry or the deep rich effects to suit.

Made in Cherry, Mahogany, Walnut, Light Oak, Antique Oak, &c.

Sample cases (100-1s) delivered in any part of United States at regular wholesale price.

Jones & Company,
150 Portland St.,
BOSTON, MASS.

ESTABLISHED 1858

Trade Mark

The Prince M'f'g. Co.,
Sole Manufacturers.
A. C. PRINCE, President.
DAVID PRINCE, Sec'y and Treas.
(Sons of the late ROBERT PRINCE, Original Manufacturer.)

PRINCE'S Metallic Paint,
An Indestructible Coating for TIN, IRON and WOOD.
BUT ONE COLOR MADE.
BROWN.
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We are prepared to quote the trade and large consumers.
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MANUFACTURERS OF
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MIXED HOUSE PAINTS.
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FOR TANKS, FREIGHT CARS, ROOFS, BRIDGES, Etc.
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"NANTAHELA" TALC.
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Quotations and Samples on Application.

WIGAND'S VERMILION. Pale, Deep and Double Deep Shades. Is now the same shade as English Vermilion, both in dry and wet state, with just as good a body and by far more permanent. No acids affect or destroy the color.

GERMAN CARMINE. Is the same shade as No. 40, has the advantage of being permanent, which No. 40 is not, glazes better, does not run, and sells for one-third less.

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G. L. & L. HAIGHT, 26 Broad Street, New York.
E. H. JEWETT
Transact a General Banking Business.
Stocks and Bonds of all kinds, bought and sold for cash or on margin.
Special attention given to orders in National Lead Trust Certificates.
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Dry Colors, Blanc-fixe, Chloride of Barium, Nitrate of Barytes, and Strontian, Borate of Manganese, Portland Cement, Asphalt Mastic Fire Bricks, &c.
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A. K. GARDINER & BROTHER,
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Sole Age for the United States and Canada

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IMPORTERS & GENERAL EAST INDIA MERCHANTS
152 & 154 Front St., cor. Malden Lane, New York.
A Full Line of Varnish Gums.

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Importers and Manufacturers of Colors.

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Chrome Yellows, Chrome Greens,
Chinese Blue, Prussian Blue,
Soluble Blue, Steel Blue,
Rose Pink, Lakes & Ruboide Vermilions,
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Established 1807.

Manhattanville Color Works,

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MANUFACTURERS OF

English" or "California" **Quicksilver Vermilion.**
Pure No. 40 Carmine,
Soluble Blue, Paints and Colors,
Dry, in Oil, and in distemper,
Colors for Paint Grinders a Specialty.

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MANUFACTURERS OF THE

S. S. F. Strictly Pure

Paris Green,

Chrome Greens & Yellows, Chinese, Prussian & Soluble Blues.

ALSO SOLE MANUFACTURERS OF THE CELEBRATED

MAGNESIA GREEN,

Corner Maiden Lane & Pearl St. **NEW YORK.**

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Genuine French Orange Mineral.

TOURS' BRAND.

Is the Finest, most Brilliant and Lasting in the World for Vermilion Manufacturers, &c.

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FERRIC CHEMICAL AND COLOR CO.,

Successors to W. E. CUTTER & CO.

Manufacturers of

VENETIAN REDS

Worcester, Mass.

Sole Agents for New York and Vicinity

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C. A. WOOLSEY'S

Standard Mixed Paints.

An old time reliable article, surpassed by none, is first-class in every respect.

Thev contain no water or Benzine.
They are Free from Chemicals.
They are made with Pure Linseed Oil.
They have great Body and Weight.
Their color is rich. They are soft, pliable and elastic.
They have an unequalled covering capacity.
They fully withstand the agency of the elements.
Their uniformity of color and quality is notable.

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EDWARD HORE,

MANUFACTURER AND IMPORTER OF

COLORS.

Vermilions, Lakes, &c.

Specialties for Grinders, Paper Mfrs., Tissue Printers, ETC.

FACTORIES, BROOKLYN, L. I. Chas. E. Hore, Supt.

OFFICE, 62-68 NORTH 11th ST. Brooklyn, E. D.

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THE BURCEY CHEMICAL CO.'S

DIAMOND METHAL

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WOOD ALCOHOL.

Perfect substitutes for Grain Alcohol for all mechanical purposes.

Binghamton, N. Y.

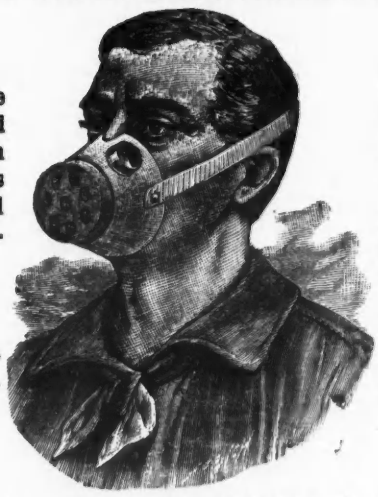
AGENTS:

WM. S. GRAY, 108 Maiden Lane, New York; | M. L BARRETT, 56 & 58 Wabash Ave., Chicago; WM. H. SWIFT & CO., 45 Pearl St., Boston.

The Hurd Patent Automatic Respirator.

To protect the **THROAT** and **LUNGS** from dust, poisonous gases and all other impurities.

Preventing disease and prolonging life.



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Air is inhaled through a wet sponge and exhaled through an automatic valve.

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MORLEY RESPIRATOR CO.,

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MANUFACTURERS OF

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STRICTLY PURE PARIS GREEN, Cardinal Vermilion, Versailles Green.

DRY COLORS of every description for **GRINDERS** use

OIL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

TUESDAY EVENING, Sept. 3.

Vegetable Oils.

The oil market remains practically unchanged. The close observance of Labor Day made one day less for business. There is general inquiry as to the state of trade, and representatives of the REPORTER have been questioned rather closely during the past few days as to whether they discover any material change in the movement of goods and if dealers are inclined to talk more hopefully of the situation. Great expectations were based on the fall trade, and from what can be learned these expectations will be realized to a large extent if not fully, as there is no disturbing element to prevent an increased consumption, and the liberal orders now coming in for the leading articles is an indication that manufacturers of finished products are commencing early to anticipate future wants of the public. The London labor strike is interfering to some extent in the movement of merchandise from that port here, but it has little significance in the vegetable oil trade, the only articles affected at present being cocoanut and palm oils. Before the strike a shipment of Cochin cocoanut oil was about to be made from London, but being since prevented, the order had to be cancelled. It is expected, however, that the labor trouble will be ended within a few days.

Linseed oil is reported in better demand to fill increased consumptive wants, but the business is confined to small orders as buyers are not inclined to operate beyond immediate necessities, hence future deliveries receive no attention. The expectation of lower prices for new crop oil is still entertained. City crushers have not changed their price of 60c for raw Calcutta seed oil, and it looks as if that figure will be maintained for the Calcutta seed product, after oil from new domestic seed is ready to be offered, which will require about two weeks more. A small quantity of Western oil is coming to this market and offered at the firm price of 57c, while the Chicago quotation is 58c. State oil is also held at 57c, with offerings on spot limited. The movement of out of town oil is reported active.

Cotton oil is finding an outlet in a moderate way from store for domestic consumption at a wide range of prices or 40@49c for summer yellow and 30@35c for straggling lots of crude oil not prime. The export movement is still encouraging, recent large shipments having been made to Austria, France and Italy. Supplies are moving off in a satisfactory way to make room for new oil which is still an uncertain commodity so far as values are concerned. There are offerings of crude at the previous figures of 31c for October delivery, but the trade has yet to hear of a single bona fide transaction. The same can be said of the New Orleans market, as our correspondent in that city wires to-night that no future delivery sales have been made. The crop is reported backward, but the prospects are good for a large yield of seed. The expectation in New Orleans is that the products will rule lower in price this season. Seed is quoted there at $12@13 per ton on bank, which appears more reasonable than a previous quotation, which made it appear as if a higher range of values would prevail for a time. This is the first week of the new season, and activity is a prominent feature around the crushing mills; but production will not amount to much for several weeks yet. The comparatively low prices for off color old oil are having a good effect in causing their purchase for soap purposes, as soap stock proper has been well cleaned up.

Exports of cottonseed oil from New York by countries:

To	For week ending Sept. 2, 1889. Gls.	Since Sept. 1, 1889. Gls.	Same time last year Gls.
Africa	..	..	....
Arg. Republic	..	....	....
Australia	..	....	....
Austria	..	....	....
Belgium	..	..	5,000
Brazil	..	....	....
Br West Indies	1,201	1,201	536
Br Guiana	..	....	....
Canary Islands	..	....	....
Central America	..	....	....
Chili	..	....	....
China	..	....	....
Cuba	..	....	....
Dan West Indies	..	....	....
Denmark	..	....	....
Dutch West Indies	..	....	....
Ecuador	..	....	....
Egypt	..	....	....
England	..	....	....
France	..	....	....
French West Indies	..	....	....
Germany	5,000	5,900	....
Hayti	100	100	....
Ireland	..	....	
Italy	5,000	5,000	....
Japan	..	....	....
Mexico	..	....	....
Netherlands	..	....	2,500
North America	..	....	....
Norway & Sweden	..	....	....
Peru	..	....	....
Porto Rico	..	....	....
San Domingo	..	....	....
Scotland	..	....	....
Spain	..	....	....
Turkey	..	....	....
U S. Columbia	..	....	....
Uruguay	..	....	....
Venezuela	..	....	....
Total	11,301	11,301	8,036

Exports of cottonseed oil from New Orleans by countries:

To	For week ending Sept. 2 1889. Bbls.	Since Sept. 1, 1889. Bbls.	Same time last year. Bbls.
Austria	..	....	....
Belgium	..	....	....
England	..	..	....
France	..	....	....
Germany	..	....	....
Gibraltar	..	....	....
Italy	..	...	....
Mexico	..	....	....
Netherlands	..	..	....
Portugal	..	..	....
Spain	..	....	....
Total	..	....	....

Exports of soap stock from New Orleans by countries:

To	For week ending Sept. 2 1889. Bbls.	Since Sept. 1, 1889. Bbls.	Same time last year. Bbls.
Belgium	..	....	...
Cuba	..	....	....
England	..	....	....
Germany	..	....	....
Italy	..	....	..
Mexico	..	....	....
Spain	..	....	....
Total	..	....	....

Cocoanut oils are considered in a good position owing to various circumstances favoring holders. In regard to Ceylon oil the spot stock is faid to be limited to 150 tons, while the ship Anahuac now on the way, is reported leaking and may have to lay up. So many mishaps have occurred lately to the cocoanut oil vessels that the marine underwriters are thinking of increasing the rate of insurance, and this is used as another argument for better prices. The spot quotation for Ceylon is 5⅝c but that figure has been shaded in recent sales. Cochin oil is in such small supply that 7⅛@7¾c are being realized by the only holder. It is impossible to get stocks from London during the labor strike. Cuban oil is in light supply, and held as usual at 5¼c It is said that the importation of Cuban oil has ceased for the present.

Olive oil is gradually moving up the scale in sympathy with foreign markets. A little better business is reported at an advance to 70@72c. The Messina advices of Baler & Co, under date of August 17 are to the effect that the rise in prices there and on the Naples Exchange has continued. There is also more export demand for prompt delivery at current prices. Reports come from the North of Sicily that the oil fly has appeared on the few olives there are there; also at Gioja it has been observed on the olives along the coast, and in case of spreading it would damage the crop. However, dealers from Bari have already appeared at Gioja as buyers for forward delivery of the first pressings of the new oil at prices from 8 to 13 per cent, above present quotations for future delivery, which confirms that e sewhere in Italy there are no olives to speak of. Under these circumstances and with small stocks the markets are firm. From another source we learn that speculation forced up the Malaga market, and that nothing is offered for export from that quarter. As regards the growing district, sa;s another authority, it is reported from Naples that in the Gioja district young olives have fallen to such an extent that there is no longer a prospect of an abundant, but only a medium crop. Stocks are small everywhere, and prices are rising. In Sicily the Messina market is firm, there being some export inquiry, although the business done has been mainly speculative. Of ordinary oil there are no offers from the islands or Greece. The political troubles in Candia have closed that market as a source of supply. At the ports on the West Coast of Asia Minor stocks have now become very limited, and a lack of suitable sailing tonnage renders business so difficult that any quotations would be nominal. In Tunis business for United Kingdom remains impracticable, while as regards Morocco all available supplies of Mogadore are said to be taken for neighboring ports at higher rates than English markets can afford.

Castor oil has more inquiry, especially No. 2, which is in light supply and quoted at 13¼@13⅜c, while No. 3 is offering at 11¼@11½c. It has been difficult heretofore to quote No. 2 as the local production of that grade was light and receipts of Western were likewise limited, probably because demand centered on No. 3, but No. 2 has lately been put on the market from another source and quotations will be more regular.

REED, HALL & HEWLETT,
18 & 20 PLATT ST., NEW YORK.

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Animal, Vegetable and Mineral OILS.
Valve, Cylinder, Signal, Machinery, Engine and Lubricating Oils.
Sperm, Lard, Tallow, Neatsfoot, Whale Elephant, Seal, Cod and Fish Oils.
Pure Spanish and Italian Olive Oils.
All grades of Pure Olive Oil Soap for Silk and Worsted Mills, either in bulk, bars or powdered.
Saponified Red and Elaine Oils.
Mineral Wool Oils and Wool Stocks.
Castor, Rape, Mustard and Cottonseed Oils, Paraffine Oils, Paraffine Wax and Beeswax.
All kinds of Lubricating and Axle Grease, Tallow, Lard and Cottonseed Grease for Soap Makers.
SOLE EASTERN AGENTS FOR THE
West Virginia Oil Company
PARKERSBURG, W. VA.
Producers of Pure Natural West Virginia Rock Oils.

Future City Oil Works Co.,
CHARLES H. MULHOLLAND, President and General Manager,
ST. LOUIS, MO.
Refiners and Manufacturers of Crude, Refined and Bleached
COTTONSEED OILS.
Pure Winter Pressed Miners' Oils, White and Yellow, the best BURNING ever prepared for Miners' use; Superior to LARD OIL and at LESS COST. Guaranteed to remain limpid at Freezing Point.
OF SALAD OILS,
PARAGON (TRADE MARK.) COOKING OILS.
Purely Vegetable.
Cottonseed Oil, Cake and Meal Reginnings and Soap Stock.
Correspondence Solicited.

The Plume & Atwood Manuf'g Co.,
MANUFACTURERS OF
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WAREHOUSES:
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(Successors to THOMAS SUGDEN.)
MANUFACTURERS OF
OIL PRESS CLOTH
FROM WOOL AND CAMEL HAIR.
JAMES BROWN, Agent, LOWELL, MASS

DOYLE'S OLD RELIABLE
BOILED D OIL,
The Standard Paint Oil of America.
Manufactured Since 1878. Send for Samples and Prices.
L. DOYLE, Sole Manufacturer, 451 West 32d St., New York.

Delaware Lubricating Oil Refinery
HIRAM E. LUTZ, Proprietor.
Manufacturer of Special Brands.
Victor, Reliance and Eclipse Oils,
LOW GRAVITY—HIGH FIRE TEST.
For Engines, Spindles, Machinery, &c., &c.
PARAFFINE OILS AND WAX.
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Refinery, Thurlow, Pa. Correspondence Solicited. Samples sent on application

INGALLS & COMPANY,
(Works, Grand Trunk Junction,)
Illuminating and Lubricating Oils,
AGENTS FOR
Wilson & Evenden's Oil Tanks and Shipping Cans
OFFICE, No. 46 JEFFERSON AVENUE, - - DETROIT MICH
We Will Buy Good Second-Hand Carbon Oil and Naphtha Barrels.

UNION OIL CO.,

PROVIDENCE, R. I., AND NEW ORLEANS, LA.

ESTABLISHED 1855.

COTTONSEED OILS,

Crude, Summer White and Yellow, Winter White and Yellow.

PURE SALAD s, OLIVE FLAVORED.

SALAD OILS IN BOTTLES AND CASES.

WHITE AND YELLOW STEARINE.

Scouring and Fulling Soap and Soap Stock.

Cottonseed Cake and Meal

JOHN H. KENDALL, Manager, New Orleans, La.

LYMAN KLAPP, President, Providence, R. I.

CREW, LEVICK & CO.,

MANUFACTURERS OF

HIGH FLASH EXTRA VISCOSITY

Red Machinery, Heavy Dark Cylinder & Lubricating Oils.

FOREIGN AGENTS FOR THE SALE OF
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FILTERED PRODUCTS.

PARAFFINE WAX.
AGENCIES ESTABLISHED THROUGHOUT EUROPE

PROPRIETORS OF THE
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BROKER IN
COTTONSEED PRODUCTS
AND
OIL MILL SUPPLIES,
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COTTON SEED
OIL WORKS MACHINERY.
OF NEW DESIGNS WITH GREAT IMPROVEMENTS.
HYDROSTATIC PRESSES FOR LINSEED, MUSTARDSEED AND CASTOR OILS.
Steam Engines, Boilers and General Machinery.
WILLIAM TAYLOR & SONS,
COLUMBIAN IRON WORKS, 23 to 39 Adams St., Brooklyn, N. Y.

ALEX McDONALD, President. H. A. HUTCHINS, Secretary. JAS. McDONALD, V. Pres't and Treas.

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DEALERS IN ALL GRADES OF

FINE LUBRICATING AND MACHINERY **OILS** Railroad, Engine, Car and Coach Oils a Specialty

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E. W. BRODE & CO.,
MEMPHIS TENN.
COTTONSEED PRODUCTS.
Miners' Oils.
Winter Yellow.
Summer Yellow.
Summer White.
Cotton Oil.
CRUDE AND REFINED OILS,
Meal and Cake. Soap Stocks.
Correspondence Solicited. Samples sent on application

DAVIS OIL CO,
10 & 12 OLD SLIP, Cor. Water St., NEW YORK.
MANUFACTURERS OF
Lard, Neatsfoot and Tallow Oils
ALSO MANUFACTURERS OF REFINED ANIMAL OILS.

Animal and Fish Oils.

With the lard and tallow markets doing better, there is more encouragement for the other articles which have been maintained on a steady basis. Business seems to have more life to it since the return home of dealers from their summer vacations, and speculative interest is being revived.

Lard oil has strengthened in tone, and city pressers are more reserved in their offerings at 53c, preferring to quote 54c. Other city brands can be bought at 52c, but 53c may be demanded to-morrow, as the tendency was in that direction at the close.

Elaine oil is moving in a moderate way at 36@39c per gallon, according to quantity, and the feeling is firm, in sympathy with tallow.

Saponified red oil is held at 5c per lb, but stray lots are still obtainable at 4¾@4⅞c. Business is reported fair.

Whale and sperm oils are without fresh features, as no business in crude has occurred, and there is no occasion for altering the steady prices now ruling for refined oils.

Whalebone continues to be quoted at $3 40 per lb. for old Arctic bone, at which figure 6,000 lbs. changed hands, also 1,400 lbs. new bone on private terms. The stock is distributed as follows:

New Bedford—Arctic,	1,500	
" " Jap & Ochotsk,	5,500	10,000
" " South Sea,	3,000	
Elsewhere—Arctic,	86,100	
" Jap & Ochotsk,	1,500	87,600
" South Sea,	none	
Total,		97,600

Menhaden oil has a good outlook in Boston where 23c is paid for oil "as it runs," which means good, bad and indifferent. In this market the interest has apparently subsided as there are more sellers than buyers. The latter call the market 21@22c for dark oil and 23c for prime light, while holders ask 23c for what they call good merchantable and 24@25c for light grades. Fishing is reported better and the yield of light oil much larger. Southern oil is no longer offered. Exporters are still in the market at a price, and while shipments are daily going forward, no fresh business is to be reported.

Oil Cake.

As supplies of new cake are not expected from the West for some days, the market is in a waiting condition, and in the meantime operators are quoting a nominal range of $25@25 25 per ton. The prospect for business is good and if ocean freight rates don't interfere, the movement to foreign ports will probably include all the cake offering.

Wax, Lard, Tallow, Etc.

Candles are attracting more attention as the season has arrived for increasing production and pushing the fall trade. Paraffine candles have been advanced ½c per lb.

Spermaceti has been placed in a position to appreciate in value by the entire surplus stock being removed. The comparatively large supplies have hung over the market like a wet blanket for some time, while little or no interest was manifested by exporters until recently when all the available stocks aggregating 1,500 boxes of 63 lbs. to the box were taken for the United Kingdom at prices ranging from a fraction under 20c to 21½c per lb. In addition to the spot transactions all of September's production was contracted for at the same figures. The business was done principally through one channel, and although stocks may be concentrated at one point, it does not mean a corner. The supply of spermaceti had become exhausted on the other side and the fresh supplies were required for the fall trade. About this time each year a movement of that character sets in.

The lard market has been more active, and values show an improvement on account of a short interest being squeezed. Western steam is quoted at 6 52½c; city, 6 40c, and refined at 6 60@7 25c.

The demand for stearines is so light that prices may be called nominal at 7@7⅝c for lard stearine and 5½@6c for oleo stearine.

Tallow prices are strong at the advance to 4⅞c for prime city, with the demand good and offerings light. Another "boom" is looked for, but it is slow in developing.

Naval Stores.

Spirits Turpentine—The market has fluctuated somewhat during the week, but to-day's closing prices were identical with those quoted at the same time last week. Upon the advent of the easier tone there were many who were of the opinion that the upward movement had exhausted itself, but this opinion was tabooed by others, who expressed it as their view that another rise would be experienced in the near future. Buyers have viewed the course of the market with suspicion, and have refused to take hold, except where supplies were actually needed to fill pressing wants. At the close to-day the market was quiet, with 44@44½c quoted.

Rosins—The market during the entire week has ruled dull and featureless, there being but little trading reported. There have been few changes in quotations, E. and G. showing a slight reduction, while M. on the other hand has been advanced. The market closed steady to-day at the following figures: Strained, $1 02½; good strained, $1 05@1 07½; E, $1 15@1 20; F, $1 25@1 30; G, $1 3½; H, $1 42½; I, $1 75; K, $1 80; M, $1 95@2 00; N, $2 15; W G., $2 45; W W, $2 55@2 60.

The following is from the Savannah *News* of September 1:

NAVAL STORES STATEMENT.

	Spirits.	Rosin.
Stock on hand April 1	1,947	73,092
Received to-day	805	2,741
Received previously	112,196	268,037
Total	115,038	343,870
Exported to-day	170	1,953
Exported previously	103,644	294,020
Total	103,814	295,973
Stock on hand and on shipboard to-day	11,224	47,897
Rec ipts same day last year	509	1,508

Messrs. Watt & Son, London, under date of Aug. 17, say:

	1889.	1888.	1887.	1886.
Stock Aug. 17..	4,933	11,531	7,863	19,399
Delivered this week	980	1,144	1,074	1,319
Since Jan. 1	38,987	42 87	45,462	50,181
Price Aug. 10	33s 6d	28s 3d	25s 9d	27s 3d
Sept-Dec	33s 6d	28s 3d	25s 0d	26s 9d
Jan-Apr	34s 0d	29s 3d	25s 6d	27s 3d

The Possibilities of Cottonseed.

Mr. Edward Atkinson, the Boston writer on political economy, has made the following interesting suggestions in regard to the cotton plant:

I premise that the day has gone by for working land as a mine subject to exhaustion, and that the time has come for working land as a laboratory or instrument of production, which may be made more productive year by year by making it more profitable in the process of working, i.e., as the crop grows bigger the land may grow better.

The function of the cotton plant, as of all other plants, is to produce seed. The product of cotton seed, if I am rightly informed, is from two and a-half to three times the weignt of the cotton fibre. The cotton fibre is only the wing of the seed. Nature concentrates in the seed the elements which will support the infant plant until the roots have been developed so as to derive nutrition from the soil. What, then, are the elements which the soil must yield to the cotton plant for the production of the cotton seed and of the cotton fibr ? By analyses made at various times in different places it appears that the fibre is nearly pure "cellulose" composed almost wholly of carbon, which carbon is derived from the atmosphere.

On the other hand, the seed is stored full of phosphate of lime, phosphate of potash and other elements which are necessary to sustain the first shoots. The proportions of these ingredients which are drawn from the soil and not from the atmosphere, are substantially as follows: In a bale of cotton of five hundred pounds, four pounds mineral elements; in the seed from which that bale of cotton has been taken, fifty pounds or thereabout. Therefore under the old practices of the old bad times when the seed was left to rot, the properties of the soil was being wasted.

On further investigation of the elements of the seed, it appears that a certain valuable proportion of the weight of the seed consists of oil, which is also mainly carbonaceous and which may be removed without impairing the fertilizing properties, and also without impairing the feeding properties of the seed, if the object of feeding is not to make fat, but to make flesh and milk. In fact, under the ordinary method of treating the cottonseed by compresion, too much oil is left in the cake, and it needs to be extended or reduced in richness, in order that it may serve the best purpose of nutrition. But again, if I am rightly informed, and you will bear in mind that all these statements are results of inquiry rather than of observation, only about one-half the phosphates of lime and potash of the seed are contained in the kernel; the other half is in the hull,

Now, then, if the cottonseed meal made exclusively from the kernels, even after the utmost compression, is too rich to be safely fed by itself, what better material could be made use of for increasing it in bulk and diminishing the portion of fat than the hulls; either in the condition in which they come from the decorticator, or else ground finer in order to be more readily digested. Manifestly such is the only proper use of the hulls, since they contain a large proportion of the mineral ingredients which have been drawn from the soil. It goes without saying that if it becomes necessary to leave the plant on the field until it has become too hard and dry to be also converted into forage, in order that the entire crop of fiber may be gathered, the plant of stalks and roots should be ploughed in as they now are. But I question very much whether the latest part of the cotton crop would be worth as much as to cut the cotton stalks while the plant is still green, such plants to be converted either in the silo, or in some other way, into forage for animals. You may ere long not only convert the hulls of the seed, but the whole bulk of the cotton plant itself, which is also full of nutritious elements, into forage, and restore it to the soil through the animal.

I will again repeat other possibilities. There are valuable elements in the root of the cotton plant. It contains tannin, and it contains other elements for dyeing which have never been fully investigated. I doubt if the fiber in the cotton stalk will ever pay for separating it from the softer portions. Now, then, if it be admitted,

1st. That the fiber of cotton may be taken from the field, and also,

2d. That the oil may be taken from the field, without removing any important element from the soil.

If it next be admitted that the oil cake, the hulls and probably the plant itself, should be restored to the soil by way of feeding it to animals, how shall that purpose be accomplished in the best way?

It might be the best way to serve all this food to cattle only, but this I doubt. The same land which may produce cotton will also produce maize or Indian corn, and cow peas. I suspect that if cotton is king, the cow-pea vine is queen, for the reason that the cow pea vine possesses the power of deriving nitrogen from the air and converting it into the soil in some way which is not yet comprehended. It is a renovating plant of the first order and it will grow anywhere in the cotton country.

The element which is wanting in the soil more than any other is nitrogen. The Southern soil, both that of the uplands, which consists of the disintegrated rocks of the country, which have never been subjected to glacial action, and also the soil of the lowlands, which is full of infusorial insects and shells, supplies phosphates and potash in abundance. But even if the phosphates and potash are deficient, they can be readily supplied at very low cost from other sources. Nitrogen, however, is the most necessary and at the same time the most costly element required by the soil in the production of cotton as well as in the production of meat, milk and almost all other articles of food. The plant which can borrow nitrogen from the air and put it into the soil is therefore the queen, and the dominion of the cow pea vine has not yet been fully recognized.

Clearances of Petroleum.

Following are the clearances of petroleum from the ports of New York, Philadelphia Baltimore, Boston and San Francisco on the dates named. Refined, unless otherwise specified:—

NEW YORK.

August 27

Am bk Albert Shultz, Bridgetown, 1,000 cs
Aus bk Paschich, Buenos Ayres, 10,500 cs
Br bk St Kilda, Callao, 22 bbls, 2,320 cs
Br str Chester, R'dam, 1,170,000 gls
Br str La Flandre, Antwerp, 91,200 cs
Sp str Gaditano, L'pool, 8,316 bbls
Sp str Navarro, L'pool, 13,246 bbls
Swed bk Hilma, Pelotas, 2,500 cs
Swed bk Axel Wastfelt, Bilbos, 3,336 bbls cde

August 28

Am bg Victoria, Bripgetown, 500 cs
Am bg Rising Sun, Pt Spain, 500 cs
Am sch W L Plummer, Guadeloupe, 1,000
Am str Saginaw, Sanchez, 44 cs
Am str Saginaw, Sto Domingo, 250 cs
Am str Saginaw, Cape Hayti, 32 cs
Am str Saginaw, Azua, 100 cs
Am str Saginaw, Samana, 3 bbls
Aus bk Lincoln, St. Louis, du Rhone, 5,307 bbls
Aus bk, Margarita, Alexandria, 24,350 cs
Br bk Galatea, London, 7,858 bbls
Br sch Lottie B, St John N B, 200 bbls
Br str, Ailsa, Kingston, 4 bbls, 852 cs
Br st Ailsa, Jeremie, 10 cs
Br str Miranda, St John N F, 10 bbls
Br str Talermo, Dunkirk, 5,732 bbls cde
Ger bk Victoria, Stettin, 4,995 bbls
It bk Nuovo Mondo, Cette, 2,775 bbls cde
It bk La Mariuccia, Pozzuli, 3,466 bbls
It bk St Anna e Maria, Cette, 2,645 bbls cde
Nor bk Kinghorne, Kings Lynn, 5,881 bbls
Nor bk Ariadne, Stettin, 4,366 bbls
Nor bk Mentor, Antwerp, 2,897 bbls nap
Nor str Viking, Dublin, 2,094 bbls

August 29

Am bg Annie R Storer, Montevideo, 2,500 cs
Am sch Anna R Bishop, Para, 1,500 cs
Am sh Pactolus, Shanghae, 39,700 cs
Am str C of Columbia, Havana, 300 cs
Br bk Stormy Petrel, Valparaiso, 1,000 cs
Br bk Stormy Petrel, Iquique, 300 cs
Br bk Stormy Petrel, Pisagua, 3,200 cs
Br sch Sarah Godfrey, St John, N F, 30 bbls
Br str Muriel, St Lucia, 165 cs
Br str Muriel, Trinidad, 1 cs
Br str Muriel, St Pierre, 100 cs
Br str Muriel, Barbadoes, 50 cs
Br str Muriel Domenica, 231 cs
Ger bg Sirius, Guayaquil, 4,400 cs
Ger sh Susanna, Hamburg, 9,120 bbls
Nor bk Foldin, Stettin, 5,171 bbls
Nor sh Kommander Svend Foyn, Antwerp, 8,197 bbls

August 30

Am bg Arcadia, Bridgetown, 500 cs
Am bk Proteus, Buenos Ayres, 1,500 cs
Am sh Wm H Macy, Yokohama, 76,951 cs
Br bg Evviva, Ponce, 800 cs
Br bk Grenada, Rosario, 7,000 cs
Br sch Carrie B, St John, N B, 700 bbls
Br sch Genesta, St John, N B, 900 bbls
Br sh Bay of Naples, Rangoon, 55,600 cs
Br str Astral, Rotterdam, 1,001,214 gls
Br str Charlois, Rotterdam, 1,195,500 gls
Br str Tower Hill, London, 380 bbls
Br str Alvena, Kingston, 1 bbl
Br str Elgiva, Carupano 100 cs
Br str Elgiva, Ciudad Bolivar, 120 cs
Dutch str Prins Maurits, Curacoa, 20 cs
Ger bk Auguste, South Shields, 8,974 bbls, 500 cs
Ger sh Louisa & Augusta, Hamburg, 7,226 bbls
It bk Venere, Soderteije, 500 bbls & 2,003 bbls nap
It bk Carmela C, Oran, 21,550 cs
Por bg Agnes, Bilboa, 22,650 cs cde
Sp str Mendez Nunez, Sta Maria, 12 cs

August 31

Am str C of Para, Panama, 10 cs
Am str C of Para, San Juan, 52 cs
Am str C of Para, La Union, 65 cs
Br sh Ben Avon, Calcutta, 57,200 cs
It bk Michele B, Alicante, 1,500 bbls cde, 16,378 cs cde

PHILADELPHIA

August 24

Am sh Emily Read, Hiogo, 45,200 cs
Fr bk Kasikal, Port de Bouc, 3,979 bbls
It bk Antonio Madre, Cagliari, f o, 22,719 bbls
Ger str Gluckauf, Harburg, 937,580 gls

August 26

Nor bk Marie Koenigsburg, 2,374 bbls
Dutch bk Ardjoene, Amsterdam, 9,135 bbls
Nor sh Jarisberg, Stettin, 7,637 bbls

August 27

Br str Thordisa, St Loubes, 12,020 bbls cde
It bk Principio, Lisbon, 18,355 cs

August 28

Bk Biagino, Caglian, 18,408 cs
Bk Candere, Dranmeen, 2,571 bbls

August 29

Nor bk Daphne, Stettin, 3,198 bbls

BALTIMORE.

August 24

Nor bk Alfarin, Helsinborg, 141,096 gls

BOSTON

August 26

Sch Moselle, Port Williams, 3 cs
Sch Sarah F, River Herbert, 5 bbls

August 27

Bg 85, Paspebiac, 26 bcls
Str Yarmouth, Yarmouth, 20 bbls

August 28

Sch Ethel Emmerson, Halifax, 200 bbls

August 30

Bk Kennard, Azores Islands, 118 bbls, 79 cs

SAN FRANCISCO

Aug 17

Marion, Cen Am, 600 cs, 5,640 gls nap

Imports of Empty Petroleum Barrels.

NEW YORK.

1,000, R A C Smith, C of Atlanta, Havana
68, E Ping, C of Atlanta, Havana
700, S Pitou, Olbers, Stettin
750, Lombard, A & Co. Saratoga, Vera Cruz
3,370, G Heye, Arracan. Stettin

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PETROLEUM MARKET.

TUESDAY EVENING, Sept, 3, 1889.

The past week has developed nothing new or interesting. Trading has been very quiet, the volume of business reported being smaller than during the week preceding. There has been an almost entire absence of interesting bull or bear efforts to manipulate the market, and the fluctuations have been due entirely to the influences exerted by the demand or a lack thereof. The only matter of interest, or to which much attention has been directed, has been the monthly field report, which it was believed would show some bearish features. This belief was based on the wells at Jefferson Centre, which came in showing a large initial production, but they have fallen off rapidly, as have nearly all the Butler County wells. The bears appear to draw some consolation from the field report, and point to the increase in new production of nearly 1,000 barrels as a very important item, but they apparently lose sight of the fact that the production of the older wells has decreased so rapidly that the total production will show no increase over that of July. The number of wells completed during August shows a decrease, and as there was a smaller proportion of dry holes, and, consequently, a larger average production per well, this is pointed to as a bear feature. It is doubtless a gratifying result to the producer, but does not affect the general situation so long as there is no decrease in the amount of the shrinkage of stocks above ground. There is really no change in the situation, and while there is a marked increase in new wells projected, these cannot prove a disturbing element before next month, and it is extremely doubtful if they will then affect the situation to any important extent. While the situation at present shows nothing new, it is interesting, and the possibilities of the future are sufficiently uncertain to make them an object of some solicitude. The transactions during the past week show a decrease from those of the previous week, the sales footing up 1,606,000 bbls against 3,305,000 bbls for the preceding week. The clearances of the local exchange amounted to 4,532,000 bbls, against 6,820,000 bbls during the preceding week. The total clearances reported for the other four exchanges amounted to 7,366,000 bbls against 10,646,000 bbls for the preceding week. The highest price of the week was reached on Thursday, when 98⅜c was touched. The lowest point of the week was 97⅛c, and was touched on Friday. The opening price last Wednesday was 97⅝c, and the close this evening was at 98⅛c, showing a gain of ½c as the result of the week's trading, while the extreme range of fluctuations for the week was 1¼c.

The review of operations in the producing fields of Pennsylvania as given by the *Derrick's* scouts show that the higher price of oil has stimulated drilling operations in every direction. Old Alleghany, the "drained territory" of pristine fame, by getting on a great hustle, has managed to keep up her reputation handsomely. She shows a greater production than in July, and a greater amount of operations must also be placed to her credit on the first day of September than was shown on August 1st. The wells are all small, however, and no new lines have been developed.

Bradford, the old reliable, stands on her dignity and wants the world to know that she is still an oil field, and her resources are not by any means exhausted. She shows an increase in new production and in operations. Like Alleghany, nothing of interest is presented in the way of new leads. It is simply greater activity in old territory, and the decline is sure to be rapid.

In the middle field division 92 wills were completed in July, with a production of 505 bbls. In August 96 wells were brought in, with a production of 608 bbls. July 31 there were 71 wells and 34 rigs; August 31 a credit of 95 wells and 55 rigs is shown. This is a net increase of 103 bbls of new oil and an aggregate gain of 44 rigs and wells. Operations are extending into new warrants and partake of wildcatting to a great degree, but as yet no strike of very great importance has been brought to notice.

While a slight falling off can be spoken of in Venango and Clarion, yet much life and bustle is developed all along the lines. The bulk of interesting operations come from Venango, Clarion showing a lack of everything except dry holes. Jonathan Watson's "Spirit well," below Titusville, has caused some interest to be taken in territory in that locality. The well started off at more than a hundred barrels, but is rapidly falling off. There has been a great volume of salt water to contend with, which factor is likely to make the pool of little importance. Dr. Forster's strike in the Nickleville corner may or may not be a good one. The drill will determine this question in a day or two. In either event no great importance can be attached to it, as it is not what would be called new territory. As far as the Doctor is concerned it is likely to make a part of his 80 acre lot worth considerably more than he invested in the whole of it.

Butler and Armstrong may rightly be said to furnish almost the whole of the new production for the month, in which feature the bulls can find a grain of comfort and use it as they like. There is also a comforting thought for them in the fact that three wells furnish almost all of this. Had the general activity been responsible for the whole result, had the increase come from a large number of small wells, there would be more discouragement for the trade in the returns. Experience with gusher territory has shorn it of much of its terrors and the way the Christie well, for instance, has shied from its initial figures will have a tendency to lessen the fears of Tauric gentlemen. The increase figures in Bradford and Alleghany and in the middle field are slightly more than offset by the reduction in Venango and Clarion and the Southwest field. In the first instance the increase is 374 bbls, while in the second the decrease is 427 bbls. This cuts off a small slice of Butler's 1,035 bbls of increase of new production to leave the increase of new production for the whole field 982 bbls. The increase in new work in Butler and Armstrong is not so formidable, Venango and Clarion, which excite little fear, being far in advance of it, as may be seen in a comparison of the figures. The Black Starr & Murphy, the Christie and the Yeakle, furnish 990 bbls. of the increase in production of this field, and the Yeakle furnishes almost three-fifths of it, being timed at 500 bbls. It was on the 17th the Christie came in, making a brief record of 45 bbls. an hour, her last quoted gauge for the day being 30 bbls. On August 20 drilling gave her an 80-bbl an hour record, closing at 55. Her final effort of moment was on August 27, when a shot brought her up to a 40 bbls an hour record from the point to which she had fallen, but the same evening she was down to 8 bbls. an hour. The superior staying qualities of the Yeakle is blamed on her gas.

In the Southwest the trade has not been treated to anything particularly surprising during the month. There has been a decrease of 12 in the total of new work, the new rigs, however, increasing 20, while the drilling wells decreased 32. There was also a decrease of 43 in the number of wells completed and of 221 bbls in new production.

Following is a tabulated summary of work completed, begun and in process during the month of August, with comparisons:

WELLS COMPLETED, AUGUST, 1889.

Field.	Wells com.	Production.	Dry.
Bradford & Alleghany.	92	625	3
Middle Field	96	608	7
Venango & Clarion	144	802	27
Butler & Armstrong	77	1,607	17
Southwest District	115	4,362	19
Total	524	8,004	73

WELLS COMPLETED, JULY, 1889.

Field.	Wells com.	Production.	Dry.
Bradf'd & Alleghany	66	354	3
Middle Field	92	505	4
Venango & Clarion	171	908	30
Butler & Armstrong.	46	572	16
Southern District	158	4,683	39
Total	533	7,022	92

Decrease in number of completed wells, 9.
Increase in new production, 982 bbls.
Average of August producing wells, 17¾.
Average of July producing wells, 13·17.
Average of June producing wells, 13·78.
Average of May producing wells, 14·24
Average of April producing wells, 15.
Average of March producing wells, 19·78
Average of February producing wells, 13·8.
Average of January producing wells, 13·08.
Average of December producing wells, 13¼.
Average of November producing wells, 12¾.
Average of October producing wells, 14½.
Average of September producing wells, 17.

RIGS UP AND DRILLING AUGUST 31, 1889.

Field.	Wells drill'g.	New Rigs.	Total.
Bradford and Alleghany.	87	70	157
Middle field	95	55	150
Venango and Clarion	109	93	202
Butler and Armstrong	71	47	118
Southwest District	244	93	337
Total	606	358	964

RIGS UP AND DRILLING JULY 31, 1889.

Field.	Wells drill'g.	New Rigs.	Total.
Bradford and Alleghany	81	43	124
Middle field	72	34	106
Venango and Clarion	122	70	192
Butler and Armstrong	55	32	87
Southwest District	276	73	349
Total	606	252	858

Increase in rigs, 106.
Decrease in drilling wells, 00.
August showed an increase of 106.
July showed a decrease of 44.
June showed an increase of 25.
May showed an increase of 94.
April showed an increase of 6.
March showed an increase of 188.
February showed an increase of 26.
January showed an increase of 30.
December showed a decrease of 7.
November showed an increase of 20.
October showed an increase of 128.
September showed an increase of 215.

Wednesday, August 28.

The feeling was somewhat stronger this morning, and the opening sale at 97⅝c showed a gain of ¼c over the close of last evening. This was the lowest price of the day, the market advancing steadily and rapidly to 98¼c, the highest reached, under fair trading. Reports came from Oil City that there was a good demand for cash oil which could not be filled, which had a hardening effect here. Sales of "to-morrow" were made at 98c, but inquiry was unimportant. During the afternoon there were frequent fluctuations, but they were of small extent, and were brought about entirely by the operators. The close was at 98⅛c, making a gain for the day of ½c, under a range to quotations of ⅝c. The sales footed up 437,000 bbls, including 2,000 of to-morrow, and 3,000 cash. The field news was to the effect that the Smith well got a pay streak in the bottom of the sand and started off at 15 bbls per hour. They found the oil about the same place the Campbell No. 1 did. The strike has no significance, being located between the Campbell and the Large wells. The Jefferson Oil Co.'s venture, on the Welsh farm, are still drilling, apparently in a hopeless cause. A gauge of the other wells is, Yeakel, 50 bbls per hour; Christie, 6 bbls per hour; Starr and Finegan, 9 bbls per hour. In the Northern field the Anchor, Forest, Taylor & Torrey well No. 3, on the Kane estate, is in the sand. The well does not show quite so much gas as their No. 2, on the same premises, but will make a 20 bbl. well. The same company's No. 4 is cased, and No. 5 is ready to commence drilling. Breuer & Co., on the Kane estate, have a well down about 1,500 feet. Armstrong & Co., on the same property, has reached a depth of 300 feet.

The half-hourly quotations were as follows:

A. M.		P. M.	
10:00	97⅝	12:30	97⅞
10:30	98⅛	1:00	98
11:00	98⅛	1:30	97¾
11:30	97⅞	2:00	98¼
12:00	97⅞	2:30	98
		3:00	98

The clearances were as follows: New York, 1,280,000; Oil City, 454,000; Pittsburg, 384,000; Bradford, 678,000; Philadelphia, 108,000; total clearances August 28, 2,904,000 bbls.

Carrying rates were: New York, 25c (renewals, 25c); Oil City, 25c; Pittsburg, 25@30c; Bradford, 25@30c.

Market August 28, 1888—89¼@91½c.

Thursday, August 29.

The market opened strong this morning at 98¼c, and there being a fair amount of bidding the figures were advanced steadily until the highest price of the day was reached at 98⅞c. Although this checked operations the figures remained near this point during the remainder of the forenoon. During the noon hour efforts on the part of a few to unload gave the bear operators an opportunity to put in a little work and they succeeded in bringing the figures down to 97⅝c. The reaction was prompt, however, and for the remainder of the day the figures kept well above 98c, but toward the close another weakness developed and the market closed, as it opened, at 98¼c. The day proved featureless and uninteresting. The sales reached a total of 406,000 bbls, all for September delivery. In the Southwest field Campbells' Harding No. 1 was ten bits in the sand and no oil yet. McLeod & Fergus, Cielland Reserve No. 2, was three bits in the Gordon sand and flowing by heads at the rate of 100 bbls per day. Hart Bros.' Shierls No. 1 was 12 feet in the Gordon sand doing 75 bbls per day. The Moore farm well was still drilling, with no show of oil. The Loughman well went through the Gantz sand to-day and is 6 or 8 feet in the 50-foot sand. There is no show of oil or gas yet. The Hartley well is through the sand. It is showing for about 300 bbls per day. The Jefferson Centre field presents no new features. The Yeokel still maintains its hourly production of 50 bbls. The McCalmont, formerly the Smith, made nearly 200 bbls in the first 24 hours' production. Jefferson Oil Co.'s well is through the sand with a small quantity of oil. Two new locations were made to-day, one by McCalmont & Co., a few feet from their No. 1, and the other by the Jefferson Oil Co., west of Campbell's No. 1. Snee & Co.'s No. 1, Wm. Bonner farm, at Brush Creek, is through the sand, and is good for about 20 bbls a day. McKelvey & Co.'s No. 5, Sam Bonner farm, is good for 60 bbls a day.

The half-hourly quotations were as follows:

A M.		P.M.	
10:00	98¼	12:30	98⅜
10:30	98⅝	1:00	98¼
11:00	98⅜	1:30	98⅜
11:30	98⅝	2:00	98⅝
12:00	98¾	2:30	98⅝
		3:00	98¼

The clearances were as follows: New York, 1,176,000; Oil City, 322,000; Pittsburg, 494,000; Bradford, 484,000; Philadelphia, 18,000; total clearances Aug. 29, 2,494,000 bbls.

Carrying rates were: New York, 25c; (renewals 25c); Oil City, 30@35c; Pittsburg, 25@30c; Bradford, 25@30c.

Market Aug. 29, 1888—91¼@92⅜c.

Friday, August 30.

Very little interest was shown at the opening this morning. The first sale was made at 98½c, and as a few more parcels were wanted a point was added, but 98¼c remained the highest price of the day. There were sellers at anything above 98c, but very few buyers, and the market soon declined on free offerings, reaching the lowest point at 97⅜c during the first hour's trading. During the decline a fair amount of oil changed hands, but during the remainder of the day trading was very quiet, although prices again stiffened during the afternoon. Late in the day the offerings were freer and the market closed dull at 97¾c, making a loss for the day of ⅝c, under a range to quotations of 1⅛c. The sales amounted to 396,000 bbls. There were no sales of August or cash oil. The field news was to the effect that the Jefferson Center wells showed a rapid decline, the Yeakel now doing 34 bbls, the Finnegan 8 bbls and the McCalmont 9 bbls per hour. B. B. Campbell's Harding No. 1, near Waynesburg depot, at Washington, cut into the pay streak last evening and started flowing at 12 bbls per hour. They have drilled at her all day without any material change. The Moore farm wildcat had a good quality of sand, but no oil or gas in it. They are drilling for the fourth sand. The Gladden No. 2, Canonsburg, is doing 6 bbls per hour.

The half-hourly quotations were as follows:

A. M.		A. M.	
10:00	98⅛	12:30	97¾
10:30	97⅝	1:00	98
11:00	97⅛	1:30	98
11:30	98¾	2:00	98
12:00	97⅜	2:30	97⅜
		3:00	97¾

The clearances were as follows: New York 1,088,000; Oil City, 556,000; Pittsburg, 528,000; Bradford, 438,000; Philadelphia, 56,000; total clearances August 30, 2,664,000 bbls.

Carrying rates were: New York, 25c; (renewals, 25c); Oil City, 30@35c; Pittsburg 25@30c; Bradford, 25@30c.

Market Aug. 30, 1888—90⅝@92⅝c.

Saturday, August 31.

This being the last day of the month it was believed that some of the operators would find it necessary to make purchases to even up their accounts, and under this belief there were no sellers at last night's closing figures. The first sale was effected at 98c, an advance of ¼c, but the buyers did not materialize, and, after a gain of only one point, there followed a gradual and steady decline to the close which was at 97¾c. This made a loss of ¼c, while the range of quotations was only ⅝c. There was no feature of consequence to note, the business being of very small proportions and developing nothing of interest. The sales amounted to 140,000 bbls. The following is the gauge of wells at Jefferson Centre: Yeakel, 40 bbls per hour; Finnegan, 7 bbls per hour; McCalmot No. 1, 4 bbls per hour; Christie, pumping 120 per day. The Burchfield well, just below the old mill, and hemmed in almost with dry holes, has some oil and may make a pumper. The McCalmot 2, east of Yeakel, looks bad and will likely prove a failure. It was reported that Dr. Forster's well at Nickleville is flowing 2 bbls per hour at six feet in the sand.

The half-hourly quotations were as follows:

10:00	98	11:30	97⅞
10:30	98⅛	12:00	97¾
11:00	98⅛		

The clearances were as follows: New York, 636,000; Oil City, 510,000; Pittsburg, 476,000, Bradford, 384,000; Philadelphia, 20,000; total clearances Aug. 31, 2,026,000 bbls.

Carrying rates were: New York, 25c; (renewals 25c); Oil City, 30@35c; Pittsburg, 25@30c; Bradford, 15c.

Market Aug. 31, 1888—89⅝@92⅜c.

Tuesday, Sept. 3.

As the dealings this morning began on sales for October delivery, practically a new estimate was to be placed on market values, and as dealers showed no disposition to offer at Saturday's closing figure, it was apparent that on further reflection the field report was not regarded so bearish as some would have had it appear. The first sale was made at 98c, an advance of ¼c over the close on Saturday. The remoteness of the settling day, more than anything else, probably, prompted fair bidding, and the price was speedily run up to 98⅝c, the highest price of the day, but this in turn checked sales, and notwithstanding that the price eased off, business continued very dull during the remainder of the day. As there was no prospect of improvement, the offerings became freer late in the day, and the price weakened, finally dropping to 97⅜c. But this was below sellers' views, and a couple of points were later added, the market closing at 98⅛c, making a gain for the day of ½c, under a range of ¾c The sales amounted to 227,000 bbls, including 5,000 cash at 98⅛c. The news from the producing region was without special feature, but several wells were reported as nearing the sand.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	98	12:30	98⅛
10:30	98⅛	1:00	98⅛
11:00	98⅛	1:30	98⅝
11:30	98⅛	2:00	98⅛
12:00	98⅛	2:30	98⅛
		3:00	98⅛

The clearances were as follows: New York, 852,000; Oil City, 472,000; Pittsburg, 552,000; Bradford, 432,000; Philadelphia, 00,000; total clearances Sept. 3, 1,808,000 bbls.

Carrying rates were: New York, 25c; (renewals, 25c); Oil City, 30@35c; Pittsburg, 25@30c; Bradford, 25c.

Market Sept. 3, 1888—Holiday.

The amount of daily sales and total for the week follow:

Date.	Bbls.
Aug. 28	437,000
" 29	406,000
" 30	396,000
" 31	140,000
Sept. 2	....
" 3	227,000
Total for the weed	1,606,000

Following is given the opening, highest, lowest and closing figures for each day, in tabulated form for comparison:

	Opening.	Highest.	Lowest.	Closing.
Aug. 28	97⅝	98¼	97⅝	98¼
" 29	98¼	98⅜	97¾	98¼
" 30	98⅛	98¼	97⅛	97¾
" 31	98	98⅛	97¾	97¾
Sept. 2		Holiday.		
" 3	98	98⅜	97¾	98⅛

The total clearances during the week at the several petroleum exchanges foot up as follows:

New York	4,532,090
Oil City	2,314,000
Pittsburg	2,434,000
Bradford	2,416,000
Philadelphia	202,000
	7,366,000
Total	11,898,000

The demand for refined continued good throughout the week but was interrupted by the holiday. There has been considerable speculation as to the cause of the suspension of purchases by one of the prominent export houses and a tendency to more caution has been noticeable on the part of others. The stocks abroad are still accumulating, but as the season of greater consumption is now near at hand no diminution in the demand is expected. The sales during the past week foot up about 125,000 bbls, over one-half of which goes in tank vessels. The price of 70° Abel test has remained steady at 7·20c for New York and Philadelphia loading and 7·15c for Baltimore loading. The principal foreign markets are easier. To-day's quotations by cable were: Antwerp, 17@17½f; Bremen, 6 95m; London, 5¾@6d, and Liverpool, 6@6¼d. Freight rates may be said to be easier, and 3s is now the average rate hence to London, while to Continental ports the range is 3s 3d@4s 6d, as to port and vessel. Home trade lots have received a fair share of attention, and prices have been steady. We quote 9¼@9¼c for State legal test, 8¼@8½c for 110 test, 8¾@9c for New York 100° flash, and 10¼@10½ for 150° water white. Western lots are offered at the same figures.

Cases for export have been in good request and sales of over 200,000 are reported. The price for plain tops has remained steady at 9·20c. Freight rates are unchanged. The nominal rates for large vessels are: For Java, 35@36c Japan, 35@36c; Calcutta, 26@27c; Bombay, 29@30c; Rangoon, 31@32c; Singapore, 31@32c; Hong Kong, 35@36c; and for Shanghae, 39@40c.

Crude in barrels for export has been in light request, and sales of 20,000 bbls are reported. The price is steady at 7·60c. Cases for export have been in good demand and sales of 45,000 are reported. The price is steady at 9·60c.

Prime city naphtha continues unchanged at 7⅜c. For export there has been no demand, and no sales are reported.

Western residuum is quoted at 2¼@2½c f o b. Barrels are quoted at 5¼@5½c. No sales are reported for export. Lima residuum is quoted at 5@5¼c in barrels.

Closing Quotations.

CRUDE.

National Transit Certificates ℔ bbl.	98⅛@	98¼
In bbls ℔ gal.		7·60
In cases		9·60
Residuum, bbls, for export 18@22°.	5¼@	5¾
for domestic use f o b	2¼@	2½

REFINED, IN BARRELS.

Cargo lots, Abel test ℔ gal.	7·20	
Philadelphia loading	7 20	
Baltimore loading	7·15	
50 bbl lots, f. o. b. or on dock	8¼@	8¼
10 bbl lots, f. o. b. or on dock	8⅝@	⅛

HIGH TEST OILS—JOBBING LOTS.

110 fire test, S. W ℔ gal.	8¼@	8¼
120 fire test, S. W	8½@	8½
130 fire test, S. W	9 @	—
State test	9¼@	—
150 fire test, W.W	10¼@	10½
300 fire test	10½@	11¼
New York city, 100 flash	8⅞@	9

REFINED IN CASES, 110 FIRE TEST.

Two-five, low screw, 10,000 lots	9 20@	—
5,000 to 10,000	9⅜@	9⅝
1,000 to 5,000	9¼@	9⅝
200 to 1,000	9⅜@	9⅞
Under 200	10 @	10⅛

NAPHTHA AND GASOLINE.

Naphtha, crude, cargo lots, 68@72 deg	7·87½	
Naphtha, crude, car lots, 68@72 deg	7¾@	8
Naphtha, crude, 70 deg	8¾@	9¾
Sweet, 62 deg	8¾@	9¾
70 deg	9¼@	10¼
76 deg	9¾@	10¾
Gasoline, 86 deg	13 @	14
88 deg	15 @	16
0 deg	18 @	19

EMPTY PETROLEUM BARRELS.

Cargoes, spot	$1 05 @	1 06
omestics, on dock	1 05@	1 05
ubject to inspection	1 05 @	-

Petroleum Statistics.

RUNS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Aug. 26	66,312	1,291,396	49,669
Tues. " 27	68,042	1,359,438	50,349
Wed. " 28	71,091	1,430,529	51,090
Thurs. " 29	58,216	1,488,732	51,335
Frid. " 30	78,050	1,566,782	52,226
Sat.Sun.31,Sept 1	....	..	....
		1888.	1889.
January		1,048,641	1,526,161
February		1,175,102	1,318,800
March		1,193,133	1,622,230
April		1,200,977	1,643,610
May		1,301,015	1,809,098
June		1,289,616	1,817,320
July		1,260,486	1,954,534
August		1,285,558	....
September		1,181,482	....
October		1,235,040	....
November		1,335,596	....
December		1,443,558	....
Year		14,950,204	...

DELIVERIES—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Aug. 26	90,796	2,025,679	77,949
Tues. " 27	97,579	2,124,258	78,676
Wed. " 28	92,671	2,216,929	79,176
Thurs. " 29	81,818	2,298,747	79,267
Frid. " 30	73,994	2,372,741	79,091
Sat. Sun. 31 & 1	....	....	....
		1888.	1889.
January,		2,225,975	2,354,570
February		2,115,803	2,286,812
March		1,980,963	2,283,645
April		1,830,522	2,242,546
May		1,676,794	2,257,175
June		1,677,320	2,276,304
July		1,933,873	2,628,065
August		2,105,343	....
September		2,210,876	....
October		2,505,653	....
November		2,434,863	....
December		2,276,396	....
Year		24,974,390	....

CHARTERS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge.
Mon. Aug. 26	96,627	1.203,127	46,274
Tues. " 27	131,349	1,334,476	49,425
Wed. " 28	29,722	1,364,498	48,721
Thurs. " 29	23,333	1,387,531	47,546
Frid. " 30	96,230	1,483,761	49,459
Sat. 31, Sun., Sep. 1	....	1,483,761	47,863
		1888.	1889.
January,		914,199	1,399,557
February		1,199,169	1,120,226
March		998,923	1,270,863
April		973,208	874,753
May		1,257 607	1,433,764
June		1,219,188	1,256,666
July		1,339,147	1,892,547
August		1,221,935	1,483,761
September		1,487,452	....
October		1,505,673	....
November		847,693	....
December		959,752	....
Year		13,923,946	....

CHARTERS FOR THE WEEK.

The total charters for refined in barrels and cases, crude in barrels and cases, naphtha, &c., during the week ending August 31, were as follows:

Refined, bbls	126,500
Refined, cs	210,000
Crude, bbls	20,000
Crude, cs	46,500
Naphtha, bbls	
Residuum, bbls	
Lubricating, bbls	
Total, crude equivalent	301,547

CLEARANCES FOR THE WEEK.

During the week ending August 31, the clearances of petroleum, in gallons, from the port of New York were as follows:

Refined	15,255,631
Crude	1,208,603
Naphtha	248,451
Residuum	
Total	16,712,685

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons, for the week ending Aug. 24; also, the total shipments to date, with comparisons with 1888:

Exports from New York for week ending Aug. 24	10,848,993
Total exports from New York from Jan. 1, 1889	356,358,641
Same period last year	282,840,497
Increase	73,518,144
Exports from U. S. for week ending Aug. 24,	10,848,993
Total exports from U. S. from Jan. 1, 1889	450,543,947
Same period last year	389,284,163
Increase	61,259,784

TOTAL EXPORTS FROM DIFFERENT PORTS.

	1889.	1888.
New York	356,358,641	282,840,497
Philadelphia	89,982,205	99,086,845
Baltimore	1,235,367	3,785,539
Boston	2,778,339	1,838,069
Perth Amboy	.....	1,733,533
San Francisco	180,062	19,680
New Orleans	9,333	.....
Grand total	450,543,947	389,284,163

CAPACITY OF VESSELS LOADING.

The following table gives the capacity of the

Exports of Petroleum from New York

REFINED.

COUNTRIES.	Week Ending Sept 2. Gals.	Jan. 1 to Aug. 26, 1889. Gals.	Jan. 1 to Aug. 27, 1888. Gals.
Africa, Liberia	.....	6,150	25,653
Sierre Leone	.....	10,000	50
South Africa	29,000	1,622,410	839,855
Zanzibar	.....	430,000	353,500
Algiers	215,550	946,200	1,197,140
Arabia	.....	460,000	190,000
Argentine Republic	315,000	5,251,110	1,982,953
Australia	.....	2,342,937	5,843,855
Austria	.....	.....	14,155
Belgium	1,330,395	16,048,718	18,706,002
Brazil	40,000	5,828,054	5,820,536
British East Indies, Aden	.....	383,840	445,000
Burmah	556,000	4,316,030	1,992,980
India	572,000	25,106,261	17,162,840
Penang	.....	1,549,795	630,000
Singapore	.....	2,344,295	1,297,556
British Guiana	.....	326,980	200,049
British West Indies, Antigua	.....	27,236	29,250
Barbadoes	20,500	168,675	241,956
Basse Terre	.....	36,020	41,220
Bermuda	.....	61,580	79,493
Domenica	2,810	13,250	7,630
Jamaica	8,331	358,181	418,247
Montserrat	.....	4,022	3,450
Nassau	.....	48,684	42,734
St. Lucia	1,650	11,478	22,686
St. Vincent	.....	15,200	10,945
Trinidad	5,010	167,925	187,260
All others	.....	131,478	56,905
Canary Islands	.....	339,012	102,250
Central America, Belize	.....	57,470	44,336
Costa Rica	.....	15,863	61,072
Guatemala	.....	38,957	44,478
Honduras	.....	23,185	23,543
Nicaraugua	.....	114,554	110,908
San Salvador	.....	38,030	44,970
Chili	10,000	747,176	2,333,000
China, Cochin	397,000	16,893,330	2,396,750
All other	.....	.....	9,368,850
Cuba	2,400	882,905	432,342
Danish West Indies	.....	49,767	33,224
Denmark	.....	2,855,231	3,209,960
Dutch East Indies, Java	.....	18,715,660	11,618,529
Macassar	.....	528,250	73,140
Sumatra	.....	520,000	325,000
Dutch West Indies	200	77,733	75,671
Dutch Guiana	.....	38,703	94,581
Ecuador	44,000	67,000	93,150
England	2,315,495	29,009,615	25,263,891
Egypt	243,500	2,235,320	498,150
France	268,025	2,871,044	721,256
French Guiana	.....	21,000	17,100
French West Indies	11,000	2,610,383	294,527
Germany	1,573,160	60,606,420	58,141,647
Gibraltar	.....	873,980	327,000
Greece	.....	.....	.....
Hawaiian islands	.....	50,000	100,000
Hayti	4,490	323,426	249,178
Ireland	110,815	3,319,981	2,465,383
Italy	180,710	4,617,203	627,987
Japan	769,510	11,263,650	6,955,610
Mexico	.....	381,355	56,001
Malta	.....	.....	120,880
Mauritius Island	.....	.....	14,750
Netherlands	3,366,214	21,564,570	14,533,100
New Zealand	.....	391,284	.....
North America, New Brunswick	90,000	399,099	367,135
New Foundland	2,029	73,755	164,478
Nova Scotia	.....	192,000	93,181
Prince Ed. Island	.....	.....	112,450
Norway and Sweden	25,630	4,910,872	4,695,583
Peru	79,305	422,143	210,829
Porto Rico	8,000	503,440	474,945
Phillippine Islands	.....	1,395,000	317,000
Portugal	.....	402,171	700,648
Reunion	.....	177,000	74,500
Russia	.....	119,690	.....
Scotland	.....	300	145,820
Siam	.....	325,000	857,050
Spain	.....	429,970	175,700
Tasmania	.....	64,200	.....
Turkey	.....	.....	435,764
U. S. of Col	1,390	729,082	464,880
Uruguay	25,000	2,416,040	900,790
Venezuela	2,200	843,571	536,689
Wales	.....	418,238	143,766
Total	15,255,631	234,662,857	209,981,699

CRUDE.

COUNTRIES.	Week Ending Sept 2. Gals.	Jan. 1 to Aug. 26, 1889. Gals.	Jan. 1 to Aug. 27, 1888. Gals.
Argentine Republic	.....	.....	.....
Australia	.....	.....	.....
Austria	.....	674,572	.....
Belgium	.....	.....	.....
Brazil	.....	918	.....
British Guiana	.....	.....	.....
British North America	.....	.....	.....
British West Indies	.....	.....	248
Chili	.....	.....	.....
Central America	.....	100	.....
Cuba	.....	2,366,085	1,891,931
Danish West Indies	.....	1,095	.....
Dutch West Indies	.....	.....	.....
England	.....	8,085	.....
France	572,449	18,756 251	14,181,644
Germany	.....	3,525,166	1,230,503
Hawaiian Islands	.....	.....	.....
Mexico	.....	2,287,592	797,240
Norway and Sweden	.....	170,805	187,230
Spain	636,154	3,142,203	7,548,282
Uruguay	.....	.....	.....
Venezuela	.....	205	.....
Total	1,208 603	39,229,994	25,588,974

NAPHTHA.

COUNTRIES.	Week Ending Sept 2. Gals.	Jan. 1 to Aug. 26, 1889. Gals.	Jan. 1 to Aug. 27, 1888. Gals.
Africa	.....	.....	.....
Algiers	.....	.....	.....
Argentine Republic	.....	7,210	1,625
Australia	.....	.....	48
Belgium	146,289	140,000	223,244
Brazil	.....	6,875	12,540
British North America	.....	522	1,800
British West Indies	.....	12	.....
Central America	.....	.....	.....
Chili	.....	.....	237
Cuba	.....	25,000	.....
Denmark	.....	.....	.....
England	.....	2,703,669	1,923,208
France	.....	2,798,973	1,542,616
Germany	.....	1,420,702	525,360
Hayti	.....	.....	.....
Ireland	.....	.....	.....
Mexico	.....	230	.....
Norway and Sweden	102,162	526,680	348,873
Portugal	.....	1,235	4,850
Russia	.....	28,223	.....
Turkey	.....	.....	.....
Uruguay	.....	180	.....
Venezuela	.....	.....	.....
Total	248,451	7,664,612	4,604,391

vessels loading petroleum at the ports of New York, Philadelphia, Baltimore and Boston on August 31:

	NEW YORK.		PHILADELPHIA.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	303,000	1,117,000	74,400	551,000
Crude	74,400	48,000	15,500	30,000
Naphtha	5,500	....	....	....
Total	382,900	1,165,000	89,900	581,000
	BALTIMORE.		BOSTON.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	3,000	....	....	....
Crude	....	....		
Naphtha	....	....	....	....
Total	3,000	....	....	....

Foreign Statistics.

REFINED QUOTATIONS.

	Antwerp.	Bremen.	London
Wed. Aug. 28	17¾@—	7.05	5⅞@6
Thur. " 29	@17¼	7.00	5⅞@6
Fri. " 30	17⅛@17¼	7.00	5⅞@6
Sat. " 31	17⅛@17¼	7.00	5⅞@6
Mon. Sept. 2	17⅛@17¼	7.00	5⅞@6
Tues. " 3	17 @17⅛	6.95	5⅞@6

STOCKS, RECEIPTS AND SHIPMENTS.

The statistical situation at the seven principal continental ports on Aug. 17, was:

	1889.	1888.
Stock, Aug. 17	861,421	507,610
Afloat "	247,473	210,409
Loading "	244,200	236,750
Total	1,353,094	954,769
Receipts Aug. 10 to Aug. 17	124,402	44,285
Rc'ts Aug. 3 '89, to Aug. 17, '89.	673,577	578,208
Shipments Aug. 10 to Aug. 17	105,194	67,277
Shp's Aug. 3, '89, to Aug. 17, '89	516,625	442,909

At London the statistical situation on the same date was made up as follows:

	1889.	1888.
Stock, Aug. 17	167,630	149,136
Afloat "	52,474	39,000
Loading "	53,500	87,800
Total	273,604	275,936
Receipts Aug. 10 to Aug. 17	17,120	.....
Rec's Aug. 3, '89, to Aug. 17, '89	76,745	62,186
Shipments Aug. 10 to Aug. 17	15,581	7,684
Shp'ts Aug. 3, '89, to Aug. 17, '89	56,439	55,833

Petroleum Charters.

Following is a list of vessels chartered and loading or to load petroleum at New York Philadelphia, Baltimore and Boston:

NEW YORK.	Bbls Re d
Feb 28	
Br shp Andrina, Calcutta, pt.....cs	90,000
March 7	
Br sh Orealla, Calcutta, pt.....cs	70,000
March 20	
Br shp Glenfinlas, Calcutta, 23c.....cs	70,000
April 24	
Br sh Palgrave, Calcutta, pt.....cs	130,000
May 8	
Br sh Buckingham, Calcutta, 25c.....cs	100,000
May 10	
Br sh Arlie, Rangoon, 32c, Calcutta 25c.cs	60,000
May 13	
Am shp John A Briggs, Japan, 35c.....cs	75,000
May 21	
Br shp Thomassina McClellan, Java, p t.cs	70,000
Br shp Crenshaw, Java, 34c, 35c, 36c....cs	50,000
May 22	
Br shp Londa, Continent, 3s 1½d	9,000
May 23	
Br shp Lord Templeton, Calcutta, 25c.cs	80,000
May 24	
Nor bk Tordenskjold, Continent, p t....	8,000
May 25	
Br bk Albeura, Far East, p t.....cs	25,000
Ger shp Leopoldschall, Hamburg, p t....	8,000
May 31	
Nor str Unita, Baltic, p t	2,000
June 4	
Br shp British Empire, Calcutta, 25c...cs	60,000
June 5	
Br str Darwin, Kurrachee, 30c.....cs	65,000
June 6	
Am sh Iceberg, Hong Kong, 35c.....cs	40,000
June 14	
Nor bk Embla, Baltic, pt	3,400
June 15	
Nor sh Josephine, U K or Cont, pt	5,500
June 17	
Am sh Alex Lawrence, Madras, 27c...cs	45,000
June 19.	
Br shp Abbie S. Hart, Yokohama, 35½c cs	55,000
Br shp Kingsport, U. K, 3s 6d	6,500
June 21.	
Br bk Gulf Stream, Java, 33c, 34c, 35c..cs	50,000
June 22	
Br shp Bramblety, Calcutta, p t.....cs	60,000
June 24	
Br sh Falls of Halladale, Calcutta, 25c.cs	80,000
Br sh Joseph H Scammell, Shanghae, p t.....cs	55,000
June 25	
Br str Mamari, London, 2s 8¼d	11,500
June 26	
Br str Pataro, w c England or s c Ireland, 3s 4½d	5,500
Br shp Trimandra, Calcutta, 26c.....cs	60,000
June 27	
Br shp Siren, Calcutta, 25c.....cs	50,000
Br shp Holyrood, Calcutta, 24½c.....cs	80,000
July 5	
It bk Mici Nipote, Bankok, 38c.....cs	30,000
July 6	
Ger bk Germania, Stettin, 4s 6d	6,000
July 11	
It bk Adele, Montevideo, f o, 40½c.....cs	16,000
Ger sh Baltimore, Cont, pt	7,500
July 15	
Ger sh Anna, Continent, pt	8,000
July 16	
Br str Sophia, Venice, o's acc, tank	11,000
Br sh Canute, Marseilles, 3s 10½d	10,000
July 19	
Am shp St John, Japan, 33c.....cs	65,000
July 20	
Nor bk P M Petersen, Baltic, p t	7,400
July 23	
Br str Monmouthshire, China and Japan, p t.....cs	....
July 25	
Belg shp Heinaut, Antwerp, o's acc, tank.	15,000
Br str Tansaville, French port, o's acc, tank.....cde	20,000
Nor str Stamford, U K 4s or Baltic 4s 6d.	2,000
Nor str Victoria, Baltic, p t	2,500
July 26	
Br str Ituni, U K, 3s 6d	5,500
Ger sh Susanne, Bremen or H'burg, pt	9,000
Nor bk Romona, Baltic, pt	2,500
July 27	
Nor bk Faldin, Baltic, pt	5,500
July 30	
Br bk Lynnwood, London, 3s 3d.....lub	9,000
July 31	
Nor bk Alsylva, Baltic, pt	3,000
Br bk Belvidere, Dublin, 3s 7½d	4,800
August 1.	
It bk Carmella Massa, Pozzuoli, 4s	2,800
Ger shp Louise & Auguste, Hamburg, 3s 3d	7,000
Aug 2	
Ger bk Western Chief, Cont pt	5,000
Ger shp Deutschland, Hamburg, 3s 9d	8,500
Ger bk Hampton Court, Continent, pt	6,500
Ger shp Union, Hamburg, 3s 10½d	7,000
Dch str Brinio, Harlingen, 4s 3d	2,000
Aug. 3.	
Br shp Benavon, Calcutta, 25c.....cs	60,000
Aug. 5	
Nor shp Persia, Antwerp, 3s 3¾d	10,000
August 6	
Br shp Blair Athole, Java, 33c.....cs	60,000
Nor bk ——, Copenhagen or Aarhus, 3s 10d	6,000
Br sh ——, Marseilles, 3s 10½d.....cde	10,000
August 9	
Br bk Marquis of Lorne, Cardiff, 3s	75,000
Nor shp Hangesund, Bristol, 3s 3d.....cs	6,500
August 13	
Br bk Nova Scotia, London, 3s 3d	7,000
Br bk Alice M Claridge, London, 3s 3d	8,000
Br bk Jas Stafford, London, 3s 3d	7,200
Br shp Tilhurst, Calcutta, p t.....cs	58,000
Aus bk Amor, Alexandria or Port Said, p t.....cs	17,000
Aug 14	
Port bk Marie, Oporto, pt	3,000
Nor bk Alfarin, Sweden, 4s 4½d	3,000
It bk Immacolata, Marseilles, 4s.....cde	5,500
Br bk Talisman, Marseilles, 4s.....cde	6,000
Aug 15	
Br bk Snow Queen, Continent, pt	6,500
Am sch Fred A Small, Passages, pt...cde	3,800
Aug 16	
Br str Salerno, Dunkirk, 4s 3d.....cde	6,000
Ger bk Chas Luling, Hamburg, 3s 6d	7,700
Aug 17	
It bk Oreb, Alexandria, 22½c.....cs	28,000
Aug 19	
Span bk Tafalla, Cette, 4s.....cde	6,000
Nor bk Embla, Baltic, 4s 9d	3,000
Aug 20	
Swed bk Naomi, Baltic, p t	4,400
Br bk Emma Payzant, Limerick, 3s 9d	5,100
Nor bk Ilos, U K, p t	4,500
Aug 21	
It bg Lemiccia, Oran, 22c.....cs	14,000
Aug 22	
Br sh Mary L Burrill, Havre, 3s 9d...cde	9,600
Aug 23	
Br sh Thos Perry, Bordeaux, 4s.....cde	7,200
Br str President Garfield, Bombay, 30c cs	65,000
Br sh Morna, Bankok, 34c.....cs	50,000
Am sh Hamilton Fish, Marseilles, 4s..cde	10,000
Aug 24	
It brg Madawaska, Gibraltar f o, p t...cs	16,000
Aug 26	
Nor shp Tagal, U K or Cont, p t	6,000
Nor shp Artemis, Stockholm, p t	4,000
Br str Broombaugh, Havre, 4s 3d.....cde	8,300
August 27	
Nor bk Olbers, Baltic, 4s 6d	5,000
Ger str Oevelgonne, H'burg, o's acc, tnk	24,000
Br str Bayonne, London, o's acc, tank	28,000
Br str Ocean, Continent, o's acc, tank	22,000
August 29	
Ger sh Stassfurt, Hambnrg, 2s 4½d	10,000
Ger sh Helene, Hamburg, 1s 5½d	8,000
Swed bk Ida, Baltic, pt	7,700
It bk Italia, Singapore, 31, 32c.....cs	35,000
August 30	
Am sh Caravan, London, 3s	8,500
Am sh Mary L Cushing, Calcutta, 27c..cs	55,000
Br sh Lord Dufferin, Calcutta, 27c.....cs	65,000
Nor bk Ilos, Dublin, 3s 6d	4,500
Br bk Bristol, London, pt	8,000
Nor bk Karnjford, Gothenburg, 3s 6d	4,500
Nor bk Vemeria, Danish port, pt	6,000
Nor bk Arracan, Baltic, pt	4,000
Span bk Pedro Gusi, Malaga, 22c..cs cde	17,500
PHILADELPHIA	
April 26	
Am sh Isaac Reed, Japan, 36½c.....cs	50,000
June 24	
Am sh Wm R Grace, Japan, 35½c.....cs	65,000
Nor bk Rachel, Malmo, 4s 6d	3,200
June 26	
Aus bk Tri Sina, Fiume, 3s 6d.....cde	5,000
Aus bk Trojedinca, Fiume, p t	3,000
June 27	
Ger bk Laura & Gertrude, U K or Cont, p t	5,500
June 29	
It bk Confidenza, w c Italy, 22½c.....cs	20,000
July 1	
Nor bk Hertha, Ger Baltic, 4s 6d	3,500
July 2	
Br str Inflexible, London, 3s 1¼d	10,000
July 8	
It brg Sollicito, Genoa, 4s	2,200
July 9	
It bk Unions, U K, 4s	2,500
July 12	
Am bk Silicon, Sables d' Olonne, 5s..cde	2,100
July 13	
Nor bk Hector, Baltic, pt	2,600
July 16	
Br str Lumen, Rotterdam, o's acc, tank.	20,000
Br str Kasbek, Antwerp, o's acc, tank	20,000
Sp str Catalan, Dublin, 3s 3d	6,500
July 19	
Br sh Ben Douren, Japan, 34c.....cs	80,000
July 20	
Dtch sh Emanuel, Dutch port, 3s 3d	10,000
July 22	
Fr bk Meridian, Reunion, 58c.....cs cde	18,000
July 23	
Nor bk Norma, Baltic, p t	2,500
July 25	
Br sh Asiana, St Loubes, 4s	7,200
July 30	
Aus bk Tri Sina, Fiume, pt.....cs cde	30,000
Nor bk Dronning Sophie, Sables d'Oloune, 4s 6d.....cde	2,900
August 2	
Ger ship Lizzie and Eugenie, Cont, pt	8,000
Ger ship Geestemunde, U K or Cont, pt.	7,000
Br ship Japphire, Continent, pt	8,000
Nor bk Hebe, Ger Baltic, 4s 5d	3,000
Am ship Frances, Japan, pt.....cs	70,000
August 5	
It bk Confidenza, Medit, pt.....cs	19,000
It bk Innocenta, Medit, pt.....cs	25,000
Aug 7	
Nor bk Otto, Ger Baltic, p t	3,000
Sp bk Tafalla, Barcelona, o's acc.....cde	6,000
Ger str Hans & Kurt, Hamburg, o's acc tank	24,000
August 10	
It bk San Luigi, Plymouth or Exmouth, 4s	2,500
It bk Teresa Accame, Cagliari f o, p t.cs	37,000
Am shp Frances, Japan, p t.....cs	50,000
August 12	
Br str Rock Light, London, o's acc, tank	25,000
Ger shp Deutschland, Hamburg, 3s 9d	8,000
Nor bk Tordenskjold, Continent, p t	7,000
Nor bk Alf, Danish port, 4s 4½d	3,000
Br bk Galatea, London, 3s 3d	7,200
August 13	
It bk Barbara Preve, Medit, pt.....cs	25,000
August 14	
Swed bk Iolani, Copenhagen or Aarhus, 4s 1½d	4,000
August 15	
Br bk Aspotogen, Dunkirk, 4s 3d.....cde	5,500
August 17	
It bk Angela de Amore, Medit, pt.....cs	35,000
It bk Cattolico, Medit, pt.....cs	35,000
August 19	
Br bk Thos Keillor, Mondon, 3s 3d	6,600
August 20	
Am sh McLaurin, Japan, 35c.....cs	50,000
It bg Salvatore, Cagliari f o, pt.....cs	10,000
August 22	
Nor bk Eleizer, Ger Baltic, p t	4,000
August 23	
Br str Crown Prince, Dunkirk, 4s 3d.cde	6,500
August 24	
It bk Rosa C, Gibraltar f o, p t.....cs	22,000
August 26	
Ger shp Frederica, Bremen or London, 3s	8,000
BOSTON	
May 18	
Br sh Elsmere, Calcutta, 25c.....cs	115,000
May 21	
Br shp Ben Venue, Calcutta, 24½c.....cs	80,000
May 22	
Am shp Henry Failing, Hiogo, 35½c...cs	70,000
Am shp Joseph S Spinney, Japan, 35c..cs	70,000
May 25.	
Sp bk S F G, Barcelona, 4s.....cde	3,500
Br str Northgate, Rouen, 4s.....cde	7,000
July 11	
Aus bk Matter, Smyrna, pt.....cs	15,000
July 16	
Am bk Jas H Ropes, Bombay, pt.....cs	25,000
Aug 27	
Nor bk Svea, St Loubes, 3s 10½d.....cde	5,000
Aug 28	
It bk Rosina, Seville or Alicante, 22c cs cde	14,000
Br sh Ellerslie, Havre, 3s 9d.....cde	7,500
It bk Pellicano, Medit, p t.....cs	35,000
It bk Italia, w c Italy, p t.....cs	20,000
Aug 30	
Nor bk Saga, Exmouth, 4s	2,500
Sept 2	
Br bk Kedron, Rouen, 4s 3d.....cde	7,500
It bk Salvatore, Seville or Santander, 22c.....cs cde	15,000
Nor bk Hilda, U K or Cont, p t	3,500
Nor bk Rival, U K or Baltic, p t	1,800
BALTIMORE	
August 13	
Ger str Pollux, Hamburg, o's acc, tank.	20,000

Petroleum Notes.

Mr. J. Edwin Hall, general selling agent of the Argand Refining Co., Marietta, O., is in the city, where he proposes to enjoy a well-earned vacation.

The Executive Committee and Advisory Board of the Producers' Protective Association met in Bradford last week and held a general discussion of the situation. A further distribution of $1 per bbl was made on shut-in oil, making a total of $14 per bbl distributed for such purpose. The committee found that they yet had in the treasury about $6,000, which they decided to hold for future contingencies.

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Drugs 49 & 50
Chemicals 50
Dyes 50

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IMPORTS, EXPORTS, DOMESTIC RECEIPTS. Etc.

IMPORTS ENTERED AT NEW YORK FOR CONSUMPTION.

Week ending August 31.

ACID ACETIC—1 cs, Schering & G, Suevia, Hamburg
BENZOIC—10 cs, Schoellkopf, H & M, Canada, London
BORACIC—5 cks, 3,606lb, H J Baker & Bro, Ethiopia Glasgow
CARBOLIC—10 cs, A O Schoonmaker, Canada, London
10 cs, Rogers & Pyatt, Moravia, Hamburg
OXALIC—140 cks, 90,384lb, Roessler & H Chem Co, Exeter City, Bristol
PHOSPHORIC—3 cs, 324lb, McKesson & R, T Hill, London
1 cs, 55lb, Rogers & Pyatt, Moravia, Hamburg
PLATATIC—5 cks, 1,650lb, H Merz, Fulda, Bremen
SAL—5 cks, 2,697lb, Schulze-Berge & K, Rhyniand, A'w'p
ALBUMEN—31 cs, Geisenheimer & Co, Europa, Hamburg
20 cs, 4,400lb, Schulze-Berge & K, Moravia, Hamburg
15 cks, Schulze-Berge & K, Laurestina, H'burg
20 cks, Schulze-Berge & K, Wieland, H'burg
ALOES—81 cs, 6,300lb, D A DeLima & Co, Philadelphia, Curacoa
50 cs, 4,300lb, McKesson & R, Philadelphia, Curacoa
15 cs, 1,178lb, J Clay, T Hill, London
AMMONIA CARB—51 cks, 30,176lb, J L & D S Riker, Wyoming Liverpool
ANILINE COLORS—4 cs, 320lb, Schulze-Berge & K, Trave Bremen
19 cks, Davis & Walton, Trave, Bremen
2 cks, 1 cs, C Georgi, Fulda, Bremen
12 cks, J Campbell & Co, Rhynland, Antwerp
35 pgs, 5,225lb, Lutz & M, Moravia, Hamburg
9 cks, 6,000lb, W J Matheson & Co, Moravia, Hamburg
10 cs, 1,000lb, Lutz & M, Rhynland, Antwerp
9 pgs, 1,400lb, J J Keller & Co, Rhynland, Antwerp
23 cks, Schulze-Berge & K, Rhynland, Antwerp
5 cks, 500lb, A Klipstein, Rhynland, Antwerp
3 cs & 3 cks, F Bredt & Co, Rhynland, Antwerp
8 cs & 24 cks, E Schlbach & Co, Rhynland, Antwerp
13 pgs, 1,912lb, Lutz & M, Wieland, H'burg
OIL—26 dms. 22,264lb, Roessler & H Chem Co, Rhyniand, Antwerp
ARCHIL—11 cks, 13,440lb, S Godwin's Sons, Canada, London
10 cks, Banning, B & Co, Canada, London
ARGOLS—44 cks, 45,680lb, Loeb & Bros, C of Berlin, Liverpool
56 cks, 88,844lb, N Y Tartar Co, Entella, Messina
22 cks, 22,257lb, Loeb & Bros, C of Paris, Liverpool
25 cks, 34,784lb, N Y Tartar Co, Sacrobosco, Messina
ARROWROOT—5 bbls, 1,088lb, McKesson & R, T Hill, London
ARSENIC—270 bbls, Sondheim, A & Co, Exeter City, Swansea
ASPHALTUM—78 bgs, 20,017lb, Balsells & Co, City of Atlanta Havana
BALSAM—4 cs, 420lb, A N Rotholz, C of Para, Aspinwall
COPAIBA—32 cs, 2,688lb, Kunhardt & Co, El Callao, C Bolivar
21 cs, 1,678lb, Thebaud Bros, El Callao, C Bolivar
11 cs. 884lb, Oelrichs & Co, El Callao, C Bolivar
BARYTES NITRATE—6 cs, 812lb, Knauth N & K, Montauk. Berlin
BERLIN BLUE—18 bbls, 44,605lb, Fuchs & L, Rhynland, Antw'p
BERRY EXTRACT—2 cs, 300lb, Geisenheimer & Co, C of Berlin, Liverpool
10 cks, 5,035lb, Schulze-Berge & K, Rhyniand, Antwerp
BITUMEN—83 cks, E H Wooton, Canada, London
BLEACH—20 pgs, Davis Wolt & Co, C of Berlin, L'pool
53 cks, 66,690lb, E Hill's Son & Co, C of Berlin, L'pool
104 cks, Mason C & Co, Egypt, L'pool
215 cks, 224,760lb, J L & D S Biker, Egypt, L'pool
BONES—4 pun, Lister Bros, Portia, St Johns
BRIMSTONE—1,240 tons, P Heinaman & Co, M L Cushing, Hiogo
1,500 tons, A S Malcomson, Entella, Girgenti
800 tons, Avis & Co, Iron Cross, Yokohama
BRONZE POWDER—5 cs, S Ullman, Trave, Bremen
5 cs, S Ullman, Fulda, Bremen
2 cs, A B Ansbacher & Co, Fulda, Bremen
4 cs, A Sartorius & Co, Fulda, Bremen
4 cs, T Reissner, Fulda, Bremen
4 cs, Fuchs & L, Fulda, Bremen
2 cs, K Schmidt & Co, Fulda, Bremen
2 cs, L Wallau, Fulda, Bremen
20 cs, J Marsching & Co, Fulda, Bremen
6 cs, Gerstendorfer & Bros, Fulda, Bremen
1 cs, S Ullman, Lahn, Bremen
7 cs, Perry & R, Lahn, Bremen
BUCHU LEAVES—1 bl, 417 lb, McKesson & R, T Hill, London
CALOMEL—2 cs, 100lb, McKesson & R, T Hill, London
CALCIUM CHLO—42 dms, 23,296lb, J L & D S Riker, Wyoming Liverpool
40 dms, 21,630lb, McKesson & R, Egypt, Liverpool
CAMPHOR—457 tubs, W F Simes & Co, Importer, Hiogo
467 tubs, 81,900lb, Gribble & N, Iron Cross, Hiogo
CANARY SEED—1 bg, A Merkel. Fulda, Bremen
CARAMEL—3 cks, C B Richard & Co. Suevia, Hamburg
CARDAMOMS—1 cs, Fischer & E, T Hill; London
CEMENT—1,000 cks, Dickenson Bros & K, Canada, London
2,493 cks, Batjer & M, J Freidrich, Hamburg
1,120 cks, E Thiele. Moravia, Hamburg
500 cks, Sinclair & B, T Hill, London
750 cks, H Fleming, T Hill, London
750 cks, H Fleming, Canada, London
300 bbls, Weir, Rodgers & Co, B Sewell, Antwerp
1,000 cks, J Brand, T Hill, London
2,200 bbls, Behrends & T, Olbers, Stettin
1,400 cks, Dickinson Bros & K, J Fredrichs, Hamburg
560 cks, Gabriel & S, Moravia, Hamburg
56 bbls, J F Heyne, Hermann, Antwerp
500 cks, F E Brugman & Co, Athlon, London
2,500 cks, J Brand, Athlon, London
2,000 cks, E Thiele, Athlon, London
1,500 cks, H Fleming, Athlon, London
2,000 cks, Sinclair & B, Athlon, London
CHAMOMILES—10 bls, 1,103lb, Stallman & F, Illinois, Antwerp
10 bls, Fischer & E, T Hill, London
2 cs, C D Engelke, Suevia, Hamburg
CHAMOIS—3 cs, Lebess S Co, La Gascogne, Havre
3 cs, Lebess S Co, Britannic, L'pool
CHEMICALS—10 cks, 4,000lb, Gabriel & S, Suevia, Hamburg
4 cs, 10 cks, Schering & G, Suevia, Hamburg
1 cs, 65lb. Roessler & H Chem Co, Fulda, Bremen
7 cs, W H Schieffelin & Co, Suevia, Hamburg
9 cs, R Kug, Suevia, Hamburg
22 cs, 2,420lb, McKesson & R, Moravia, Hamburg
2 cs, Schoellkopf H & M, Canada, London
25 cs, Lutz & M, Lahn, Bremen
62 cs, W H Schieffelin & Co, Rhyniand, Antwerp
11 cs, Knauth, N & K, Montauk, Hamburg
CLOVES—100 bls, 13,174lb, L German, Canada, London
COAL TAR PRODUCTS—10 cks, H Merz, Fulda, Bremen
COBALT OX—4 cs, 1,000lb. Trave, Bremen
COCULUS IND—45 pkts, 1,214lb, McKesson & R, Tower Hill, London
COCA LEAVES—40 bls, W R Grace & Co, City of Para, Aspinwall
COLORS—3 cs, J Marsching & Co, La Gascogne, Havre
2 cs, A Sartorius & Co, La Gascogne, Havre
3 cs, A Sartorius & Co, C of Paris, Liverpool
12 cks, 5,505lb, H Merz, Moravia, Hamburg
CORIANDER SEED—18 bgs, 6,380lb, Meyer Bros Drug Co, Europa, Hamburg
CORKS—2 bls, International Wine Co, Westerniand, Antwerp
2 bls, Mariani & Co, Illinois, Antwerp
11 bls, Colgan & Co, Hindoo, Hull
WOOD—315 bdls, Truslow & Co, Nimbus, Lisbon
1,300 bdls, J Robinson & Co, Nimbus, Lisbon
1,614 bdls, Gudewill & B, Nimbus, Lisbon
DRUGS—1 cs, 279lb, McKesson & R, T Hill, London
4 cs, A O Schoonmaker, Umbria, L'pool
23 bls, 14 cs, Meyer Bros Drug Co, Europa, H'burg
2 bgs, 300lb, McKesson & R, Moravia, Hamburg
DUTCH METAL—1 cs, S Ullman, Trave. Bremen
2 cs, Fuchs & L, Fulda, Bremen
2 cs, K Schmidt & Co, Fulda, Bremen
2 cs, J Marsching & Co, Fulda, Bremen
1 cs, Gerstendorfer Bros, Fulda, Bremen
1 cs, G Meier & Co, Lahn, Bremen
1 cs, Gerstendorfer Bros, Lahn, Bremen
DYEWOOD EXTRACT—15 cks, 7,592lb, Beach & Co, Germanic Liverpool
10 cks, A De Ronde & Co, Germanic, L'pool
6 cks, W Huermann, Hermann, Antwerp

FENNEL SEED—80 bls, 6,600 lb, R Hillier's Son Co, Entella, Palermo
FISH SOUNDS—6 cs, 787lb, H Witte, Canada, London
FRANKFORT BLACK—3 cks, R F Downing & Co, Canada London
FULLERS EARTH—230 bgs, A De Ronde & Co, Exeter City Bristol
FUSTIC—30 tons, J Agostini, Saratoga, Frontera
7¼ tons, L Brandeis & Co, Saratoga, Campeache
GALLS—16 cs, Stamford Mfg Co, Antoinette, Hong Kong
119 cs, J R Townsend, Antoinette, Hong Kong
EXT—5 bbls, 2,556lb, J J Keller & Co, Rhynland, A'werp
GAMBIER—611 b.s, 46,128lb, C Von Pustau & Co, Holland, London
200 bls, 49,736lb, Core & H, Canada, London
GAMBOGE—5 cs, 913lb, McKesson & R, T Hill, London
GELATINE—3 cs, 343lb, A Hodge & Co, T Hill, London
GINGER—7 bbls, 840lb, Macy & D, Tyrian, Kingston
200 bgs, R Crooks & Co, Egypt, Liverpool
GLASS CATH—10 cs, 5,807lb, J Fitzpatrick & Co, Ethiopia Glasgow
PLATE—4 cs, 1,696ft, Heroy & M, Illinois, Antwerp
8 cs, 1,171ft, S Bache & Co, Illinois, Antwerp
8 cs, 1,834ft, J Kahn, Fulda, Bremen
6 cs, 770ft, J Zahn, Wyoming, Liverpool
9 cs, 969ft, P Semmer G Co, Wyoming, Liverpool
40 cs, 10,356ft, H H Cahn, Rhynland, Antwerp
28 cs, 1,805 ft, J Kahn, Rhynland, Antwerp
4 cs, 1,879lb, Holbrook Bros, Rhynland, Antwerp
6 cs, 2,533 ft, S Bache & Co, Rhynland, Antwerp
5 cs, 1,282 ft, Sonurim & Co, Hermann, Antwerp
ROLLED—10 cs, 5,284lb, N Y Glass Co, Ethiopia, Glasgow
13 cs, 10,380lb, T W Morris & Co, Wyoming, Liverpool
WINDOW—265 cs, 27,881lb, Heroy & M, Germanic, L'pool
11 cs, 1,456lb, J Zahn, Wyoming, Liverpool
1 cs, P Semmer G Co, Wyoming, Liverpool
50 cs, 4,000lb, T W Morris & Co, Wyoming, Liverpool
919 cs, 51,350lb, T C Dunham, Hermann, Antwerp
25 cs, 875lb, Avery, P & Co, Hermann, Antwerp
2,162 cs, 115,960lb, Holbrook Bros, Rhynland, Antwerp
144 cs, 7,200lb, Thorne & R, Hermann, Antwerp
819 cs, 45,510lb, S Kneuss, Hermann, Antwerp
747 cs, 26,110lb, J T Heyne, Hermann, Antwerp
GLUE—38 cks, 22,268lb, A Hodge & Co, T Hill, London
12 cks, 12,940lb, Sykes & S, Bothnia, Liverpool,
15 cks, 10,920lb, S Isaacs & Co, Exeter City, Bristol
GUM—27 cs, 4,593lb, J Clay, T Hill, London
11 cs, 3,460lb, Stallman & F, La Gascogne, Havre
17 bbls, 2,568lb, Stallman & F, Britannic, L'pool
ANIMI—22 cs, 4,620lb, Walker Gum Co, L Hill, London
ARABIC—55 cs, 13,941lb, Thurston & B, T Hill, London
COPAL—24 cks, 94 bgs, 25,120lb, Walker Gum Co, T Hill, London
56 cs, J W Greene, Glenshiel, Singapore
KAURI—47 cs, 11,280lb, Walker Gum Co, T Hill, London
GYPSUM—100 cks, 78,852lb, G A & E Meyer, Egypt, L'pool
INDIGO AUX—23 cks, 33,563lb, Schulze-Berge & K, Rhynland, Antwerp
CARMINE—2 cks, 200lb, Schulze-Berge & K, Rhynland, Antwerp
EXT—15 cks, 2 kgs, 10,500 lb, Pickhardt & K, Canada London
INDIGOTINE—3 cs, C Georgi, Fulda, Bremen
INSECT POWDER—20 bbls, R F Downing & Co, Bolivia, Trieste
IODINE—10 bbls, 1,629lb, Watjen, T & Co, C of Para, Aspinwall
IPECAC—4 pgs, 328lb. McKesson & R, T Hill, London
IRON OXIDE—1 ck, F A Reichardt, Fulda, Bremen
46 cks, G W Sheldon & Co, C of Paris, L'pool
JAPAN WAX—35 cs, Dodge & O, Monmouthshire, Hiogo
LAMPBLACK—30 pgs, 2,121 lb, Sawyer, W & Co, Island, Copenhagen
LANOLIN—10 cs, 1,000lb, Lutz & M, Columbia, H'burg
LEAD—1,993 pigs, 222,080lb, Bruce & Co, A Garguilo, Seville
LEAVES—1 cs, McKesson & R, Germanic, L'pool
LEECHES 4 cs, H Witte, La Gascogne, Havre
LICORICE ROOT—41 bls, 3,733lb, Arguimbau & W, A Garguilo, Seville
PASTE—25 cs, 5,506lb, Weaver & S, Ltd, Caledonia, Naples
LIME ARSEN—230 kgs, 36 cks, Hemingway & Co, Tower Hill London
MACE—1 cs, J O'Donohue's Sons, T Hill, London
MANGANESE OXIDE—1 cs, 90lb, McKesson & R, Moravia, Hamburg
MANNA—18 cs, 1,335lb, McKesson & R, Entella, Palermo
10 cs, G Nuestadt, Sacrobosco, Palermo
MANURE SALT—1,000 bgs. 223,520lb, H J Baker & Bro, J Fredrich, Hamburg
MUSTARD SEED—25 bgs, 125 bu, Tyler & Finch, Tower Hill, London
NUTMEGS—51 cs, 3,439lb, J H Recknagel, Monmouthshire, Singapore
63 cs, 3,920lb, J O'Donohue's Sons, T Hill, London
OCHER—2 cs, 800lb, T Howard, Canada, London
OIL AMBER—5 cs, 500lb, Fritzsche Bros, Fulda, Bremen
ANISE—50 cs, Dodge & O, Antoinette, Hong Kong
BERGAMOT—21 cs, 500lb, T Leeming & Co, Peconic, Messina
21 cs, 525lb, G Lueders, Peconic, Messina
25 cs, 625lb, L & J Michaelis, Entella, Messina
61 cs, 3,050lb, Dodge & O, Entella, Messina
CARAWAY—1 cs, 25lb, McKesson & R, Moravia, H'burg
CASCARILLA—1 cs, 13lb, Frirzsche Bros, Fulda, Bremen
CASSIA—20 cs, 1,320lb, A A Stilwell, Antoinette, Hong Kong
COD LIVER—25 bbls, Meyer Bros Drug Co, Montauk, Hamburg
25 bbls, F Paulsen & Co, Ethiopia, Glasgow
10 bbls, Hartvig S & Co, Moravia, Hamburg
LEMON—41 cs, 1,000lb, T Leeming & Co, Peconic, Messina
1 cs, 13lb, A Geise, Fulda, Bremen
25 cs, 625lb, R F Downing & Co, Entella, Messina
100 cs, 5,000lb, Dodge & O, Entella, Messina
25 cs, 625lb, Codman & H, Entella, Messina
OLIVE—2 cks, G Nicchia, Entella, Palermo
1 ck, R F Downing & Co, Entella, Messina
ORANGE—4 cs, 100lb, G Lueders, Peconic, Messina
1 cs, 3lb, A Geise, Fulda, Bremen
PALM—5 cks, 9,603lb, B P Ducas & Co, C of Paris, L'pool
POPPY—50 bbls, 18,729lb, B P Ducas, & Co, La Bretagne, Havre
RAPE—102 cs, 1,010 gls, W Avis, Monmouthshire, Hiogo
ROSE—1 cs, A Geise, Lahn, Bremen
SULPHUR—50 bbls, 17,864lb, Leber & B, Sacrebosco Palermo
WINTERGREEN—2 dms, 560lb, Fritzsche Bros, Fulda, Bremen
ORRIS ROOT—20 bgs, 2,205lb, Kirby & B, Entella, Palermo
OXIDIZING PASTE—10 kgs, 3,650lb, J C Bloomfield & Co, Ethiopia, Glasgow
PATCHOULY LEAVES—10 bbls, 2,311lb, Dadabhoy & Co, C of Paris, Liverpool
PERFUME—14 cs, Park & T, La Gascogne, Havre
9 cs, M Meyer, La Gascogne, Havre
1 cs, Meyer Bros Drug Co, Europa, Hamburg
7 cs, R F Downing & Co, Britannic, Liverpool
PICHI—4 bls, 850lb, W R Grace & Co, C of Para, Aspinwall
PIMENTO—150 bgs, 22,500lb, Macy & D, Tyrian, Kingston
182 bgs, 25,000 lb, A S Lascelles & Co, Tyrian, Black River
PLUMBAGO—156 bbls, 87,562lb, Knudson, P & Co, Canada, London
POPPY SEED—5 bgs, 550 lb, Meyer Bros Drug Co, Europa Hamburg
POTASH CARB—15 bbls, Davis, Wolt & Co, C of Berlin, L'pool
CAUSTIC—50 pgs, 4,708lb, E Hill's Son & Co, Illinois, Antwerp
CHLO—80 kgs, 8,960 lb, Davis, Wolt & Co, C of Berlin Liverpool
200 kgs, 22,400lb, W R Peters & Co, C of Berlin, L'pool
38 cks, 21,200lb, J L & D S Riker, C of Paris, Liverpool
100 kgs, 11,200lb, H J Baker & Bro, C of Paris, L'pool
HYD—25 bbls, 2,792lb, E Hill's Son & Co, Illinois, Antwerp
MURI—2,000 bgs, 448,000 lb, H H Salmon & Co, Suevia Hamburg
1,000 bgs, 224,000lb, Battelle & R, J Frederichs, Hamb'g
PUMICE—149 cks, 1,151 bgs, R J Waddell & Co, Maresca, Genoa
QUININE—10 cs, 10,000 ozs, Stallman & F, Fulda, Bremen
14 cs, 14,000 ozs, Roessler & H Chem Co, Fulda, Bremen
RAPESEED—3 bgs, 300lb, A Merkel, Fulda, Bremen
50 bgs, 11,000lb, Meyer Bros Drug Co, Europa, Hamburg
ROTTENSTONE—47 cks, R J Waddell & Co, Exeter City Swansea
SALTCAKE—70 cks, R Crooks & Co, Egypt, Liverpool
SARSAPARILLA—3 bls, 254lb, A N Rothols, C of Para, Aspinwall
SCAMMONY—1 bg, McKesson & R, T Hill, London
1 cs, 250lb, J Clay, T Hill, London
SENNA—5 bls, 1,950lb, J Clay, T Hill, London
25 bls, 7,504lb, Stallman & F, Britannic, Liverpool
SHELLAC—100 cs, Knudson, P & Co, Canada, London
5 cs, A O Schoonmaker, Umbria, Liverpool
100 cs, L C King, T Hill, London
300 cs, Rogers & Pyatt, Canada, London
SIENNA—37 cks, 17,582lb, Kessler & Co, Canada, London
SOAP CASTILE—500 cs, 19,294lb, J D Nordlinger, Entella, Palermo
200 cs, 10,007lb, Liebman & B, Entella, Palermo
50 cs, L Windmuller & R, Entella, Palermo
500 cs, 19,535lb, Weaver & S, Ltd, Caledonia, Leghorn
250 cs, 9,535lb, Weaver & S, Ltd, Alesia, Marseilles
STOCK—31 cks, 11,811lb, E Hill's Son & Co, Entella, Palermo
SODA ASH—38 cks, 57,356lb, J L & D S Riker, Egypt, L'pool
58 cks, 146,700lb, J Lee & Co, S of Penna, Glasgow
CARB—140 bbls, 56,000lb, R Crooks & Co, Egvp, L'pool
140 bbls, 56,000lb, J L & D S Riker, Wyoming, L'pool
CAUSTIC—100 dms, 65,000lb, E Hill's Son & Co, C of Berlin, Liverpool
50 pgs, 32,896lb, Davis, Wolt & Co, C of Berlin, Liverpool
280 dms, 182,596lb, R Crooks & Co, Egypt, L'pool
200 dms, 127,247lb, E Yarnall & Son, Egypt, L'pool
100 dms, 65,083lb, J L & D S Riker, Britannic, Liverpool
CHLO—50 kgs, 5,600lb, J L & D S Riker, C of Paris, Liverpool
NITRATE—12,082 bgs, W R Grace & Co, M Browne, Pisagua
PHOSPHATE—10 cks, Hensel B & L, Rhynland, Antwerp
10 cks, Schulze-Berge & K, Rhyhland, Antwerp
SPONGE—47 bls, Lasker & B, Santiago, Nassau
143 cs, Park & T, T Hill, London
28 bls, Lebess Sponge Co, Santiago, Nassau
43 bls, A Isaacs & Co, Santiago, Nassau
48 bls, C A Salmon & Co, C of Atlanta, Havana
STRONTIA NITRATE—5 cks, 635lb, Knauth, N & K, Montauk, Berlin
SUMAC—100 bgs, 16,093lb, J L Morgan & Co, Entella, Palermo
1,050 bgs, 168,983lb, Phelps Bros & Co, Entella, Palermo
300 bgs, 47,950lb, Innes & Co, Entella, Palermo
350 bgs, 55,942lb, J Marcadent, Sacrobosco, Palermo
LEAVES—150 bls, C H Kimball, Entella, Palermo
TALC—100 bgs, R F Downing & Co, Hindoo, Hull
97 cs, Canada, London
TONCA BEANS—86 pgs, Kunhardt & Co, El Callao, C Bolivar
UMBER—34 pgs, 16,110lb, G W Sheldon & Co, Hindoo, Hull
58 cks, 23,365lb, Kessler & Co, Canada, London
VARNISH—21 cs, T Howard, Canada, L'pool
2 cs, A Sartorius & Co, La Gascogne, Havre
1 cs, R F Downing & Co, La Gascogne, Havre
VERDIGRIS—3 cks, M Frankfort, La Gascogne, Havre

WAREHOUSED.

ACID BORACIC—5 cks, 3,855lb, H J Baker & Bro, Ethiopia Glasgow
ANILINE COLORS—24 cs, 10 cks, E Sehlbach & Co, Illinois, Antwerp
2 cs, 3 cks, Schulze-Berge & K, Trave, Bremen
12 cks, 1,100lb, Geisenheimer & Co, Trave, Bremen
BAY RUM—3 cks, 144 gls, Dodge & O, Muriel, Roseau
COCAINE—1 cs, 32lb, G Amsinck & Co, C of Para, Aspinwall
CORKS—28 bls, Colgan & Co, Hindoo, Hull
58 bls, F Llado & Co, Ch Lafite, Bordeaux
GLASS WINDOW—15 cs, 9,808lb, P Semmer G Co, Germanic Liverpool
2,027 cs, 87,640lb, Dougherty, E & M, Hermann, A'werp
411 cs, 20,650lb, Thorne & R, Hermann, Antwerp
GLUE—15 cs, 13,023lb, S Isaacs & Co, Rhynland, Antwerp
LICORICE PASTE—250 cs, 65,377lb, Arguimbeau & W, A Garguilo, Seville
POWDER—1 bl, Arguimbeau & W, A Garguilo, Seville
OIL ESS—1 cs, 26¼lb, R G Winny, Gallia, L'pool
OPIUM—45 cs, 6,364lb, R F Downing & Co, Germanic, L'pool

PURE LOGWOOD EXTRACTS SOLID AND LIQUID. W. A. ROSS & BRO., 58 PINE ST., NEW YORK.

Carbonate of Ammonia.
Chlorate of Potash.
Oxalic Acid.
Zinc Dust. (Indigo Auxiliary.)
Blood and Egg ALBUMEN
Aniline Colors.

Schulze-Berge & Koechl,
186 FRONT STREET, NEW YORK.
IMPORTERS OF CHEMICALS AND DYESTUFFS,
AND SOLE AGENTS FOR
Salol, pat'd, the new Antiseptic.
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Mirbane Oil.
Pure Aniline Oil and Salt.
SALICYLIC ACID
Archil Extract.
Indigo Extract.
Alizarine.

POTASH PRUSS—25 cks, 17,922lb, Roessler & H, Chem Co Montauk, Hamburg
BICHRO—43 cks. 33,116lb, J L & D S Riker, Sof Pa, Gl'w
SPONGE—148 bls, Lasker & B, Santiago, Nassau
40 bls, Isaacs & H, Santiago, Nassau
37 bls, Mansell & B, Santiago, Sassau
58 cs, Mansell & B, L Hill, London

IMPORTS AT NEW ORLEANS.

SARSAPARILLA—29 bls, Gussie, Bocas del Torre

IMPORTS AT BALTIMORE.

For week ending Aug. 29.

CEMENT—300 bbls, Gothia, Hamburg
IRON OXIDE—4 cks, Lord Landsdowne, Swansea
KEISERIT—250 tns, A L Thomsen, Gothia, Hamburg
MANURE SALT—305 tns, Gothia, Hamburg
ROOTS—8 bdls, Gothia, Hamburg
SALT CAKE—121 cks, Mentmore, Liverpool
SODA ASH—907 cks, 182 tcs, Mentmore, Liverpool
CAUSTIC—100 dms, Mentmore, Liverpool
VENETIAN RED—53 cks, Mentmore, Liverpool

IMPORTS AT BOSTON.

Week ending Aug. 31.

ALIZARINE—20 bbls, order, Rialto, Antwerp
AMMONIA—10 cks, Linder & M, Venetian, Liverpool
BLEACH—255 cks, order, Iowa, Liverpool
167 cks, Baring Bros, Venetian, Liverpool
156 cks, Linder & M, Venetian, Liverpool
CALCIUM CHLO—42 cks, order, Cephalonia, Liverpool
CEMENT—295 cks, order, Milanese, London
1,000 cks, Fiske, C & Co, Rialto, Antwerp
CHALK—250 tons, R E Burnett, Milanese, London
CHAMOIS—2 cs, White Sons & Co, Scythia, Liverpool
CHINA CLAY—6 cks, Hamm ill & G, Venetian, Liverpool
380 cks, order, Venetian, Liverpool
COLOR—34 bbls, order, Iowa, Liverpool
2 cs, Wright & M, Milanese, London
1 ck, Putnam & F, Rialto, Antwerp
10 bbls, J A & W Bird & Co, Venetian, L'pool
1 pg, S W Tilton & Co, Scythia, Liverpool
5 kgs, order, Scythia, Liverpool
DEXTRINE—300 bgs, C Morningstar & Co, Milanese, London
GALLS—25 bgs, 12 cs, order, Milanese, London
GAMBIER—157 bls, order, Milanese, London
GELATINE—5 cks, A Hayes & Co, Cephalonia, L'pool
GLASS PLATE—2 cs, Baring Bros, Rialto, Antwerp
1 cs, R Sherburne, Venetian, L'pool
WINDOW—13,154 pgs, Baring Bros, Rialto, Antwerp
771 cs, J Munroe & Co, Rialto, Antwerp
90 cs, order, Rialto, Antwerp
51 cs, R Sherburne, Venetian, L'pool
5 cs, Lambert Bros, Venetian, L'pool
GREASE—34 bbls, order, Milanese, London
3 bbls, C W Geiler, Rialto, Antwerp
20 cks, order, Scythia, Liverpool
GUM—60 cs, order, Milanese, London
GYPSUM—9 cks, J Bowler, Cephalonia, Liverpool
IRISH MOSS—6 bbls, J G Hall & Co, Yarmouth, Yarmouth
LEAVES—19 bls, order, Milanese, London
LOGWOOD—588 tns, order, S B Hale, Milk River, Ja
MADDER—5 cks, order, Milanese, London
MAGNESIA—35 cs, C C Goodwin, Milanese, London
9 cs, Carter & K, Milanese, London
5 cs, Gelman Bros, Venetian, Liverpool
MANGANESE—6 cks, E & F King & Co, Worcester, Pt Hawks bury
29 cks, E & F King & Co, Rialto, Antwerp
NUTMEGS—100 cs, order, Milanese, London
OIL OLIVE—7 cks, W Underwood & Co, Scythia, L'pool
70 pgs, Brown Bros & Co, Scythia, Liverpool
POTASH—10 cks, order, Rialto, Antwerp
SANDALWOOD—5 tns, J D Lewis, Iowa, Liverpool
SOAP CASTIL —250 cs, Weaver & S, Ltd, Scytia, L'pool
150 cs, Brown Bros & Co, Scythia, Liverpool
SODA ASH—155 cks, 200 bgs, order, Iowa, Liverpool
101 cks, Baring Bros, Venetian, Liverpool
101 cks, Morey & Co, Venetian, Liverpool
161 tcs, Linder & M, Scythia, Liverpool
72 cks, order, Scythia, Liverpool
CARB—84 bbls, order, Scythia, Liverpool
CAUSTIC—174 dms, order, Iowa, Liverpool
25 dms, order, Cephalonia, Liverpool
SAL—167 bbls, E & F King & Co, Iowa, Liverpool
SPONGE—81 cs, Otis, Clapp & Co, Milanese, London
TAPIOCA—274 bgs, order. Milanese, London
VARNISH—1 cs, A Richardson & Co, Milanese, London
VENETIAN RED—200 bbls, order, Rialto, Newcastle
VERMILION—2 cks, Abbott, D & Co, Cephalonia, Liverpool

IMPORTS AT PHILADELPHIA.

ACID BENZOIC—1 ck, order, Minnesota, London
BARK—121 pgs, order, Minnesota, London
BISMUTH—3 bbls, 5 cks, order, Minnesota, London
BLEACH—87 cks, Baring Bros, B King, Liverpool
BROMINE—37 cks, Powers & W, Br King, Liverpool
CHALK—10 cks, order, Minnesota, London
CHEMICALS—2 cks, Queen & Co, Manitoban, Glasgow
CLAY—113 bbls, order, Br King, Liverpool
COLORS—20 bbls, order, Br King, Liverpool
1 cs, Weber & Co, Br King, Liverpool
CORKWOOD—665 bdls, Brown Bros, Aspatogan, Lisbon
GLASS WINDOW—500 cs, order, Br King. Liverpool
INDIGO EXT—6 cks, Brown Bros, Br King, Liverpool
9 cks, Andreykovicz & D, Br King, Liverpool
LEAD—6 cs, Weber & Co, Br King, Liverpool
MANGANESE OXIDE—52 cks order, Manitoba, Glasgow
OIL—50 cks, order, Br King, Liverpool
OPIUM—2 cs, order, Minnesota, Liverpool
POTASH CHLO—109 kgs, Fergusson Bros, Br King, Liverpool
50 kgs, order, Br King, Liverpool
MURI—3,500 kgs, Manitoba, Hamburg
PUMICE—185 bgs, order, Br King, Liverpool
SOAP STOCK—400 bbls, R Shoemaker & Co, Br King, L'pool
200 bbls, order, Br King, Liverpool
SODA ASH—34 cks, C Leanig & Co, Br King, Liverpool
46 cks, J Lee & Co, Manitoban, Glasgow
283 cks, Wing & E, Lord Clive, Liverpool
CAUSTIC—100 dms, order, B King, Liverpool
30 dms, G W Reeves, Br King, Liverpool
50 dms, Fergusson Bros, Manitoban, Glasgow
135 bbls, Pa Salt Mfg Co, Br King, Liverpool
SAL—374 bbls, order, Br King, Liverpool

WITHDRAWALS FROM BOND.

Aniline colors, pgs	147
Barytes, cks	41
Bay rum, pgs	5
Chemicals, cs	10
Colors, cks,	40
Corks, bls	22
Dextrine, bgs	100
Glass, window, cs	687
Glue, pgs	21
Lead, pigs	389
Licorice paste, cs	25
Matches, cs	110
Morphine, cs	1
Ocher, bbls	45
Oil codliver, bbls.	20
Oil essential, cs	2
Opium, cs	18
Pomade, cs	1
Potash, chlo, pgs	78
Potash pruss, cks	5
Quicksilver, flks	50
Saltpeter, bgs	969
Soap castile, cs	175
Sponge, pgs	141

TOTAL DOMESTIC RECEIPTS.

FOR WEEK ENDING SEPT. 1, 1889.

	For week.	Since Jan 1.
Alcohol bbls.	455	18,799
Ashes pkgs.	..	2,449
Beeswax pkgs.	23	645
Borax pkgs.	..	27,319
China clay cks.	112	5,067
Cottonseed bags.	..	3,916
Meal, bgs.	..	8,641
Cake bgs.	.	47,160
Soap stock bbls.	..	..
Flaxseed bush.	..	272
Grease pkgs.	381	26,528
High Wines bbls.	1,542	146,555
Lead pigs.	7,048	300,328
Mustard seed bgs.	..	12,501
Oil, Cottonseed bbls.	208	39,525
Lard bbls.	4	5,166
Linseed bbls.	..	..
Lubricating bbls.	..	16,125
Cake bags.	4,332	280,861
Oleo stock pkgs.	234	24,120
Pitch bbls.	50	3,045
Quicksilver flks.	..	1,955
Rosin bbls.	6,981	168,068
Stearine pkgs.	300	4,277
Sumac bags.	140	4,375
Tallow pgs.	964	37,372
Tar bbls.	476	20,899
Turpentine, crude bbls.	85	841
Spirits bbls.	1,296	60,584

NEW YORK DOMESTIC RECEIPTS.

For week ending Sept. 1.

ALCOHOL—325 bbls, J A Webb & Son, B & O RR
130 bbls, J A Webb & Son, Penn RR
BEESWAX—5 pgs, Belt & B, str, N O
3 pgs, order, str, Charleston
3 pgs, order, str, N O
11 pgs, order, str, Richmond
1 pg, J K Cilley & Co, str, Richmond
CLAY—112 cks, order, str, Charleston
GREASE—63 pgs, order, N R boats
27 pgs, order, Penn RR
13 pgs, order, C RR of N J
84 pgs, order, H R RR
27 pgs, S & S, Penn RR
16 pgs, O M Scripture, Penn RR
12 pgs, Welch, H & C, N R boats
49 pgs, G Vandenhove, N R boats
50 pgs, Davis Oil Co, C RR of N J
HIGH WINES—65 bbls, Barclay & Co, Penn RR
455 bbls, Curtiss & Co, Penn RR
325 bbls, T B Kerr, Penn RR
261 bbls, G W Kidd & Co, D, L & W RR
65 bbls, J A Webb & Son, B & O RR
195 bbls, J A Webb & Son, Penn RR
66 bbls, J L Hasbrouck & Co, D, L & W RR
65 bbls, Ross & K, Penn RR
110 bbls, Engle & Co, L V RR
LEAD—621 pigs, Tatham Bros, Erie RR
1,200 pigs, Tatham Bros, D, L & W RR
3,238 pigs, E Brush, str, Richmond
389 pigs, order, L V RR
800 pigs, Leroy S & L Co, D, L & W RR
800 pigs, Colwell L Co, D, L & W RR
OIL COTTONSEED—103 bbls, Faith Oil Co, str Galveston
150 bbls, So Oil Co, str, N O
LARD—4 bbls, H W Calef, Penn RR
CAKE—300 pgs, Simmonds & G, Penn RR
214 pgs, I & C Moore & Co, B & O RR
1,000 pgs, I & C Moore & Co, Erie RR
420 pgs, I & C Moore & Co, H R RR
852 pgs, Various, Canal
1,456 pgs, Wright & L D L & W RR
OLEOSTOCK—65 pgs. Loeb & Co,
94 pgs, order, B & O RR
75 pgs, order, H R RR
PHOSPATE ROCK—1,120 bgs, A S Malcomson, str, Port Royal
PITCH—50 bbls, DeGrauw A & Co, str, Sav
PLUMBAGO—200 sks, Kettle & Co, str, N O
ROSIN—44 bbls, G Potter & Co, str, Fernandina
199 bbls, G Potter & Co, str, Brunswick
1,260 bbls, G Potter & Co, sch, Georgetown
755 bbls, J Turton's Sons, str, Savannah
191 bbls, F W Blossom, str, Savannah
295 bbls, F W Blossom, str, Richmond
151 bbls, C S Higgins & Co. str, Savannah
551 bbls, Paterson, D & Co, str, Savannah
400 bbls, Paterson, D & Co, str, Brunswick
200 bbls, Paterson, D & Co, str, Richmond
340 bbls, Dutton & W, str, Savannah
100 bbls, G W Bailey & Co, str, Savannah
231 bbls, G W Bailey & Co, str, Richmond
36 bbls, Z Mills, str, Charleston
644 bbls, Z Mills, sch, Georgetown
90 bbls, order, str, Charleston
93 bbls, order, sch, Georgetown
395 bbls, order, str, Wilmington
644 bbls, forward, str, Savannah
50 bbls, Murphy & Co, str, Savannah
600 bbls, Murchison & Co, str, Savannah
STARCH—525 pgs, order, Penn RR
375 pgs, order, Erie RR
STEARINE—225 tcs, N K Fairbank & Co, HRRR
75 tcs, N K Fairbank & Co, L V RR
SUMAC—140 bgs, forward, str, Richmond
TALLOW—96 pgs, order, N R boats
22 pgs, order, B & O RR
178 pgs, order, H R RR
13 pgs, order, L V RR
5 pgs, order, Penn RR
3 pgs, B T Babbitt, C RR of N J
20 pgs, H O Armour & Co, H R RR
125 pgs, H O Armour & Co, N Y O & W RR
10 pgs, D S Brown & Co, L V RR
27 pgs, Kuh & T, L V RR
24 pgs, Kuh & T, C RR of N J
27 pgs, Kuh & T, N R boats
211 pgs, G Vandenhove, N R boats
40 pgs, G Vandenhove, Penn RR
20 pgs, G Vandenhove, D L & W RR
68 pgs, H W Calef, N R boats
14 pgs, H W Calef, D L & W RR
4 pgs, H W Calef, C RR of N J
11 pgs, C S Higgins & Co, C RR of N J
6 pgs, C S Higgins & Co, Penn RR
12 pgs, A Churchman, N R boats
80 pgs, G E Taylor & Co, C RR of N J
7 pgs, Ferris & K, N R boats
15 pgs, Welch, H & Co, N R boats
10 pgs, Welch, H & C, C RR of N J
TAR—192 bbls, forward, str, Wilmington
284 bbls, order, str, Wilmington
TURPENTINE SP—17 bbls, G Potter & Co, str, Fernandina
42 bbls, G Potter & Co, str, Brunswick
16 bbls, G Potter & Co, str, Charleston
143 bbls, G Potter & Co, sch, Georgetown
120 bbls, Dutton & W, str, Savannah
6 bbls, forward, str, Savannah
110 bbls, forward, str, Wilmington
150 bbls, Paterson, D & Co, str, Brunswick
16 bbls, Z Mills, str, Charleston
240 bbls, Z Mills, sch, Georgetown
34 bbls, order, str, Charleston
58 bbls, order, sch, Georgetown
147 bbls, order, str, Wilmington
127 bbls, Tolar, H & Co, str, Richmond
64 bbls, G W Bailey & Co, str, Richmond
6 bbls, Hueston & Co, str, Richmond
CDE—75 bbls, Z Mills, sch, Georgetown
10 bbls, forward, str, Wilmington

SAVANNAH DOMESTIC RECEIPTS

For week ending Aug. 31.

CLAY—24 cks, C RR
GUANO—2 car, C RR
GUM—8 bbls, Augusta
OIL—6 cs, 82 bbls, C RR
2 tnk, C & S RR
PAINT—2 bbls, C & S RR
ROSIN—2,289 bbls, C RR
101 bbls, C & S RR
9,581 bbls, S, F & W RR
168 bbls, Augusta
SOAP—27 cs, C RR
STARCH—25 bxs, C RR
TAR—12 bbls, C & S RR
TURPENTINE SPIRITS—768 bbls, C RR
33 bbls, C & S RR
3,563 bbls, S, F & W RR

NEW YORK, August 21, 1889.
73 William Street.

I to-day offer the following, out of my extensive line, for specially advantageous quotation.

Acid, Benzoic. *Aloin, G. P.* *Paraldehyd.*
Acid, Phosphoric. *German Tinctures.* *Resorcin.*
Acid, Salicylic. *Lithium Salts.* *Salol.*
Atropine. *Morphine Sulph.* *Terpin Hydr.*

A full line of **GUARANTEED REAGENTS.**

E. MERCK.

This style of bottle adopted for American market in **1869.**

FIRST ORDER OF MERIT

Awarded to Leopold Hoff of Hamburg,

at the Melbourne, Australia Exposition, 1889 for Quality and Excellence of his Malt Extract.

This original article can only be obtained in the United States under label of

HOFF'S MALT EXTRACT--TARRANT'S

THE ORIGINAL. Introduced into the U. S. by Leopold Hoff, **1866.**

THE IMPORTED. Imported by Tarrant & Co., per S.S. Hamburg-Am. Packet Co., since **1869.**

THE GENUINE. Manufactured to-day in the same factory and by the same party as in **1866.**

Is invariably put up in the special green bottle as per cut; it has a German caution label printed in red on the back of each bottle and is never sold in the U. S. in any other style of package.

CAUTION.

Beware of a substitute article for which preposterous claim of originality is made, by a concern which has assumed the name Johann Hoff and which dates back only to 1880, eleven years after we became the Agents for and Importers of the original Hoff's Malt which is now sold as

HOFF'S MALT EXTRACT-TARRANT'S.

TARRANT & CO.,

Sole Agents and Importers,

278, 280, 282 Greenwich Street,

NEW YORK.

ESTABLISHED 1834.

51 bbls, Augusta
CRUDE—63 bbls, S, F & W RR
WAX—1 bxs, C RR
1 pg, C & S RR
1 pg, S, F & W RR

BOSTON DOMESTIC RECEIPTS

For week ending Aug. 31.

CLAY—26 cks, str, Savannah
GREASE—49 bbls, 6 pgs, B & A RR
140 bbls, 5 pgs, B & P RR
105 bbls, 5 pgs, O C RR
15 bbls, N Y & N E RR
7 bbls, 6 pgs, B & M RR
37 bbls, by sea
4 bbls, F RR
OIL—20 bbls, str, Savannah
ROSIN—400 bbls, str, Savannah
TALLOW—53 bbls, 2 pgs, O C RR
31 bbls, 1 pg, F RR
27 bbls, 16 pgs, B & M RR
15 bbls, N Y & N E RR
TURPENTINE SPIRITS—160 bbls, str, Sav

WILMINGTON DOMESTIC RECEIPTS

For week ending August 31.

ROSIN—4,116 bbls, Inland
TAR—1,488 bbls, Inland
TURPENTINE SPIRITS—1,554 cks, Inland
CRUDE—323 bbls, Inland

CHARLESTON DOMESTIC RECEIPTS

For week ending August 31.

CLAY—5 cars, 167 cks, S C RR
1 car, C & S RR
PHOSPHATE ROCK—11 cars, C & S RR
ROSIN—1,612 bbls, S C RR
115 bbls, C & S RR
536 bbls, N E RR
SPTS TURP—354 cks, S C RR
54 cks, C & S RR
254 cks, N E RR

NEW ORLEANS DOMESTIC RECEIPTS.

For week ending Aug. 29.

ACID—3 cars, N O & N E RR
ALCOHOL—77 bbls, 24 hf bbls, Ill C RR
BONES—1 car, N O & N E RR
14 sks, Columbia
CANDLES—1 car, N O & N E RR
CLAY—1 car, L N O & T RR
COTTONSEED—146 sks, Bayou, Sara
252 sks, Columbia
727 sks, Grand Lake
1 car, T & P RR
MEAL—3,340 sks, L N O & T RR
FERTILIZER—8 cars, N O & N E RR
GLUCOSE—1 car, N O & N E RR
150 bbls, Ill C RR
LEAD—900 pigs, S P RR
OCHRE—25 cs, Ill C RR
OIL—59 bbls, St Louis
310 bbls, 5 cars, L, N O & T RR
2 cars, N O & N E RR
PHOSPHATE ROCK—3 cars, L & N RR
ROSIN— car, N O & N E RR
SOAP STOCK—400 bbls, L, N O & T RR
STARCH—1,250 bxs, L, N O & T RR
1 car, N O & N E RR
TURPENTINE—2 cars, N O & N E RR

EXPORTS FROM NEW YORK FOR THE WEEK ENDING SEPT. 3.

ACID
3 cbys $15 Saginaw, Sanchez
4 cbys $63 Muriel, St Lucia
8 cbys $27 T Brooks, Guadeloupe

ACID SULPHURIC
10 cbys $44 Muriel, Trinidad
75 cbys $253 C of Atlanta, Sagua

ALCOHOL WOOD
3,430 gls $861 W H Macy, Yokohama

AMMONIA
1 bx $5 Muriel, Trinidad

ANISEED
bg $5 Saginaw, Sto Domingo

BARK
12 bls $217 Jersey City, Bristol

BORAX
1 kg $9 A R Taylor, St Croix

BRIMSTONE
5 tons $120 Miranda, Halifax

CANDLES
1 cs $24 S Godfrey, St John, N F
40 bxs $38 Muriel, St Lucia
10 cs $90 Muriel, Barbadoes
35 pgs $79 Muriel, Trinidad
18 bxs $18 Muriel, Domenica
10 bxs $15 Alvena, Kingston
15 bxs $30 A R Taylor, St Croix

CARBON
15 bbls $60 S of Indiana, Glasgow

CARBON BLACK
12 bbls $50 Circassia, Glasgow

CASCARA SAGRADA
6 bls $70 Alaska, Liverpool
19 bls $375 Suevia, Hamburg

CASSIA
2 bls $6 Saginaw, Azua
11 pgs $53 Miranda, Halifax

CEMENT
10 kgs $10 St Kilda, Callao
38 bbls $99 Cameo, Macoris
20 bbls $80 A R Taylor, St Croix

CHALK
6 bbls $8 T Brooks, Santiago de Cuba

CINNAMON
1 bl $16 Allianca, Maranham

COPPER PAINT
30 gls $37 Saginaw, Cape Hayti

COTTONSEED CAKE
260,070lb $1,300 Rhaetia, Hamburg

DYEWOOD EXTRACT
1,045 pgs $6,180 Rhaetia, Hamburg
200 bxs $1,353 Nevada, Liverpool
10 bbls $117 Circassia, Glasgow
10 bbls $168 Delambre, Liverpool
10 bbls $300 Alaska, Liverpool

EARTH PAINT
34 dgs $75 Phoenix, Windsor

ETHER
1 cs $71 Holland, London

FLAVINE
25 bxs $375 Circassia, Glasgow

GAS OIL
50,000 gls $1,800 C of Columbia, Havana

GASOLINE
9,600 gls $1,800 Mentor, Antwerp
500 gls $155 A R Storer, Montevideo
1,000 gls $400 Stormy Petrel, Pisagua

GINGER
10 bbls $75 Miranda, Halifax

GLUCOSE
64,000lb $1,080 Critic, Leith
155,400lb, 3,690 Glenshiel, London
12,000lb $270 Aurania, Liverpool
15,000lb $337 Santiago, Hull
24,000lb $540 Circassia, Glasgow
76,800lb, $1,800 Santiago, Hull

GLUE
50 bbls, $1,165 Chester, Rotterdam
1 cs $9 Saginaw, Pt du Paix
3 cs $35 Holland, London
21 bbls $431 S of Indiana, Glasgow

GRAPE SUGAR
67,200lb $1,681 Jersey City, Bristol
237,600lb $5,794 Glenshiel, London
56,000lb, $1,330 Aurania, L'pool
29,120lb $606 Santiago, Hull
280,000lb $6,176 Holland, London

GREASE
24,000lb $1,750 Jersey City, Bristol
9,540lb $330 Circassia, Glasgow
13,020lb $550 Alaska, L'pool
99,271lb $2,300 Holland, London
63,528lb $2,525 Burgundia, Marseilles
968lb $25 T Brooks, Guantanamo

GUM
11 cs $164 Aurania, L'pool

LAMPBLACK
1 bbl, $8 Chester, R'dam

LICORICE
1 cs $36 Miranda, Halifax

LIME PHOSPHATE
303 pgs $4,500 Rhaetia, Hamburg

LOGWOOD
4 bbls $13 T Brooks, Guantanamo

LOGWOOD EXT
1,000 bxs, $4,420 Aug Victoria, H'burg
9 pgs $141 St Kilda, Callao
100 bbls $277 W H Macy, Yokohama

LUBRICATING GREASE
26,410lb $1,413 St Kilda, Callao
2,310lb $88 Saginaw, Sanchez
250lb $24 Ailsa, Kingston
1,800lb $360 Circassia, Glasgow
2,381lb $124 Sirius, Guayaquil
2,743lb $325 Stormy Petrel, Pisagua
310lb, $44, Elgiva, Cuidad Bolivar
700lb, $105 Alaska, L'pool
426lb $16 A R Taylor, St Croix
29,400lb $4,300 S of Indiana, Glasgow

MATCHES
3 cs $39 Ailsa, Jeremie

OCHER
1 bbl $16 Saginaw, Sto Dgo
4 bbls $19 Philadelphia, Pto Cabello

OIL ALMOND
164lb, $8 Muriel, Trinidad

OIL CAKE
458,836lb $6,400 Jersey City, Bristol
289,200lb $3,150 Otbers, L'pool
918,213lb $12,962 Glensheil, London
228,565lb $3,000 Suez, Avonmouth
223,902lb $3,050 Ethiopia, Glasgow
461,997lb $6,237 Holland, London
104,400lb $1,361 Westernland, Antwerp

OIL COCOANUT
16 hhds $700 Lottie B, St John, N B

OIL CODLIVER
1,687 gls $675 Allianca, Maranham
2,889 gls $1,044 A R Storer, Montevideo

OIL COTTONSEED
949 gls $581 Ailsa, Kingston
100 gls $46 Ailsa, Jacmel
5,000 gls $2,350 Suevia, Hamburg
102 gls $52 Muriel, St Lucia
100 gls $55, Muriel, Trinidad
50 gls $27 Muriel, Domenica
5,000 gls $2,200 Burgundia Marseilles

OIL ESSENTIAL
8 cs $882 Aug Victoria, Hamburg
2 bbls $18 Miranda, Halifax
4 cs $300 Ems, Bremen
2 bbls $18 Lottie B, St John, N B
4 cs $800 Trave, Bremen

OIL FISH
4 7,626 gls $8,530 S of Indiana, Glasgow
51 gls $14 T Brooks, Guantanamo

OIL LARD
1,565 gls $873 St Kilda, Callao
50 gls $35 Saginaw, Azua
1,500 gls $795 La Normandie, Havre
1,550 gls $871 Suez, Bristol
51 gls $26 Muriel, St Lucia
3,000 gls $1,800 Stormy Petrel, Iquique
1,200 gls $720 Stormy Petrel, Pisagua
700 gls $423 B Fabens, Pt Natal
100 gls $58 T Brooks, Guantanamo
50 gls $27 C of Para, San Juan
149 gls $82 A R Taylor, St Croix

OIL LINSEED
53 gls $35 Philadelphia, Pto Cabello
15 gls $11 T Brooks, Guantanamo
10 gls $8 C of Para, San Juan
102 gls $66 A R Taylor, St Croix

OIL LUBRICATING
5,177 gls $1,858 St Kilda, Callao
7,179 gls $3,300 Paschich, Buenos Ayres
3,000 gls $700 Jersey City, Bristol
803 gls $310 Allianca, Rio Janeiro
47 gls $11 Miranda, Halifax
16,660 gls $2,380 La Normandie, Havre
298 gls $83 Ailsa, Kingston
23,780 gls $4,350 Rhaetia, Hamburg
2,500 gls $2,252 Nevada, Liverpool
6,720 gls $1,200 Circassia, Glasgow
1,308 gls $611 Sirius, Guayaquil
223,253 gls $46,179 K S Foyn, Antwerp
98 gls $50 S Godfrey, St John, N F
2,300 gls $720 E Monarch, London
7,400 gls $1,775 Santiago, Hull
855 gls $466 A R Storer, Montevideo
60 gls $27 Muriel, Martinique
3,945 gls $805 La Gascogne, Havre
1,700 gls $250 Fulda, Bremen
344 gls $100 Ethiopia, Glasgow
350 gls $197 Elgiva, Cuidad Bolivar
70 gls $61 Cameo, Macoris
3,500 gls $1,200 Proteus, Buenos Ayres
16,170 gls $2,210 Burgundia, Marseilles
1,007 gls $525 Burgundia, Genoa
1,200 gls $325 Westernland, Antwerp
2,610 gls $1,294 T Brooks, Guantanamo
156 gls $5 C of Para, San Juan
101 gls $43 C of Para. Callao
690 gls $500, Trave, Bremen

OIL MEAL
75,750lb $1,312 Rising Sun, Pt Spain
37,500 lb $600 A Schultz, Bridgetown
37,500lb $600 Victoria, Bridgetown
1,950lb $30 Muriel, St Lucia
7,500lb $130 Muriel, Trinidad
4,200lb $95 Muriel, Domenica
7,500lb $135 Muriel, St Kitts
37,500lb $600 Arcadia, Bridgetown

OIL MINERAL
10,044 gls $9 9 Illinois, Antwerp
12,500 gls $.00 A R Taylor, St Croix

OIL OLEO
34,237lb $3,424 Aug Victoria, Hamburg
35,000lb $3,500 Suevia, Hamburg
17,400lb $1,486 Circassia, Glasgow
22,261lb $2,404 Veendam, Rotterdam
13,010lb $1,300 E Monarch, London

OIL PEPPERMINT
10 cs $600 Aug Victoria, Hamburg
1 bx $46 Ailsa, King ton
10 cs $550 Suevia, Hamburg

OIL SPERM
750 gls $585 S of Indiana, Glasgow

OPIUM
100lb $286 Ailsa, Kingston

PAINT DRYER
749 gls $180, Chester, Rotterdam

PARAFFINE WAX
52,548lb $2,970 Jersey City, Bristol
151,740lb $7,120 Hekla, Stettin
14,270lb $7.4 5 Circassia, Glasgow
288,983lb $14,850 Holland, London

PEPPER
1 bg $15 Saginaw, Sto Domingo

PIMENTO
1 bg $7 Saginaw, Sto Domingo
2 bgs $35 Saginaw, Azua

PITCH
40 bbls $45 St Kilda, Callao
45 bbls $78 Miranda, St John's, N F
10 bbls $17 Lottie B, St John's, N B
50 bbls $65 Sirius, Guayaquil
10 bbls $15 Atalanta, Montego Bay

POTASH
10 dms $88 Grenada, Rosario
1 cs $19 Elgiva, Cd Bolivar

RED LEAD
4 kgs $22 Cameo, Macoris
1 kg $7 T Brooks, Guantanamo

ROOTS
7 bls $449 Aug Victoria, Hamburg

ROSIN
115 bbls $333 St Kilda, Callao
250 bbls $650 Hilma, Pelotas
58 bbls $170 Critic, Leith
250 bbls $900 Paschich, Buenos Ayres
5 bbls $12 Miranda, Halifax
50 bbls $225 Aurania, Liverpool
631 bbls $947 Circassia, Glasgow
10 bbls $27 Elgiva, Carupano
100 bbls $260 Elgiva, Ciudad Bolivar
100 bbls $380 Proteus, Buenos Ayres
400 bbls $600 C of Berlin, Liverpool
40 bbls $69 C of Para, Acajutla

SARSAPARILLA ROOT
4 bls $64 Aug Victoria, Hamburg

SENEGA ROOT
4 bls $215 Alaska, Liverpool
2 bls $400 Suevia, Hamburg
5 bls $375 Burgundia, Leghorn
8 bls $440 Burgundia, Genoa

SOAP
2 bxs $18 Saginaw, Macoris
1,300 bxs $650 Saginaw, Cape Hayti
15 pgs $60 Olbers, Montevideo
12 bxs $54 Olbers, Monrovia
155 bxs, $232 Miranda, St John's, N F
3 pgs $41 Ailsa, B'ack River
752 cs $456 Ailsa, Kingston
1,400 bxs $772 Ailsa, Aux Cayes
100 bxs $58 Ailsa, Jacmel
350 bxs $189 Ailsa, Jeremie
230 bxs $670 Sirius, Guayaquil
4 pgs $25 C of Columbia, Cardenas
576 bxs $1,900 E Monarch, London
300 cs $670 Stormy Petrel, Pisagua
42 cs $580 Grenada, Rosario
40 cs $90 M Nunez, Sta Marta
335 cs $750 Alvena, Kingston
100 cs $400 Alaska, Liverpool
300 bxs $174 P Maurits, Pt au Prince
250 bxs $145 P Maurits, Jacmel
1 cs $13 Philadelphia, La Guayra
4 bxs $35 C of Para, Guayaquil
90 bxs $415 C of Para, Panama
40 pgs $53 A R Taylor, St Croix

SODA
5 bbls $33 Ailsa, Jeremie

SPONGE
50 bbls, $2,500 Holland, London

STARCH
10 bxs $12 Saginaw, Sanchez
3 cs $11 Ailsa, Sav La Mar
5 cs 13 Ailsa, Kingston
100 bbls $1,124 Holland, London
50 bxs $115 C of Para, San Jose
25 pgs $147 A R Taylor, St Croix

STEARINE
49,894lb $2,125 Burgundia, Marseilles
13,789lb $965 Europa, Hamburg

SULHHUR
2 bbls $7 Miranda, St John, N F

TALLOW
1,864lb $110 St Kilda, Callao
17,447lb $850 C of Berlin, Liverpool
135lb $9 Saginaw, Macoris
600lb $60 Saginaw, Cape Hayti
118,100lb $570 La Normandie, Havre
65,700lb $1,908 Rhaetia, Hamburg
122,617lb 5,365 Circassia, Glasgow
4,000lb $235 E Monarch, London
125lb $11 Muriel, St Lucia
64,895lb $2,750 Alaska, Liverpool
20,800lb $2,000 Burgundia, Marseilles
4,808lb $323 C of Para, Acajutla
385lb $25 A R Taylor, St Croix

TAR
10 bbls $37 Miranda, St Johns, N F
5 cs $10 C of Columbia, Havana
10 bbls $30 Atalanta, Montego Bay
2 bbls $10 Cameo, Macoris
10 cs 18 P Maurits, Carupano
5 bbls $17 C of Para, San Juan

TURPENTINE
3,900 gls, $1,733 St Kilda, Callao
1,500 gls $691 Hilma, Rio Grande du Sol
3,000 gls $1,375 Paschich, Buenos Ayres
40 gls $20 Allianca, Maranham
500 gls $240 Allianca, Bahia
20 gls $9 Saginaw, Pto Plata
393 gls $182 Miranda, St Johns, N F
1,494 gls $658 Miranda, Halifax
197 gls $90 Lottie B, St John, N B
1,000 gls $455 Sirius, Guayaquil
452 gls $196 C of Columbia, Havana
96 gls $50 C of Columbia, Cardenas
100 gls $45 Atalanta, Montego Bay
47 gls $22 Muriel, Barbadoes
2,000 gls $.,000 Stormy Petrel, Valparaiso
600 gls $250 Stormy Petrel, Iquique
1,450 gls $715 Stormy Petrel, Pisagua
500 gls $264 Grenada, Rosario
50 gls $28 Elgiva, Ciudad Bolivar
500 gls $314 B Fabens, Pt Natal
5,000 gls, 2,125, Proteus, Buenos Ayres
284 gls $130 T Brooks, Guantanamo
10 gls $6 C of Para, San Juan

VARNISH
50 gls $245 Trave, Bremen
174 gls $54 Miranda, St John's, N F
50 gls $10 Lottie B, St John, N B
138 gls $226 Suevia, Hamburg
80 gls $50 C of Columbia, Havana
20 gls $35 Santiago, Hull
390 gls $424 A R Storer, Montevideo
60 gls $335 La Gascogne, Havre
10 gls $9 M Nunez, Sta Marta
35 gls $38 Elgiva, Ciudad Bolivar
230 gls $249 B Fabens, Pt Natal
630 gls $630 Proteus, Buenos Ayres
255 gls $231 C of Para, Callao

VASELINE
1 cs $18 Hilma, Pelotas
3 cs $83 Ailsa, Kingston
9 bbls $216 E Monarch, London
1 bx $13 Muriel, St Lucia
3 cs $43 Murial, Trinidad
1 cs $20 Muriel, Antigua
3 cs $172 Grenada, Rosario
3 bbls $65 Holland, Liverpool

WAX
3,063lb $660 Aug Victoria, Hamburg

WHALEBONE
30lb $75 Suevia, Hamburg
3,523lb $11,734 Rhaetia, Hamburg

WHITE LEAD
7 kgs $34 Cameo, Macoris
1 kg $7 T Brooks, Guantanamo
5 cs $40 A R Taylor, St Croix

ZINC OXIDE
7 kgs $53 Philadelphia, Pto Cabello

New York to San Francisco.

Per Am. str. City of Para, August 31.
Copper Paint—35 cs, $537
Dyewood—8 pgs, $143
Grease—10 bbls, $324
Lubricating Grease—2 bbls, $61
Oil Cottonseed—50 cs, $750
Oil Lard—1,000 gls, $640
Rosin—100 bbls, $350
Saltpeter—10 kgs, $110
Soap—130 bxs, $218
Stearine—2 bxs, $40
Sugar Lead—1 bbl, $156
Varnish—2,400 gls, $3,600

San Francisco Exports.

For week ending Aug 21.

BONE MEAL
101,920lb, S G Wilder, Honolulu

CANDLES
80 bxs, W G Irwin, Honolulu

FERTILIZER
858 bgs, S G Wilder, Honolulu

GINSENG
8,787lb, City of Peking, China

OIL COCOANUT
6 bbls, Walla Walla, Victoria

OIL LINSEED
102 gls, Marion, Central America

OIL LUB
152 gls, Walla Walla, Victoria

OIL OLIVE
15 cs, W G Irwin, Honolulu

PAINT
47 pgs, Walla Walla, Victoria
8 pgs, W G Irwin, Honolulu
50 pgs, Marion, Central America

ROSIN
25 bbls, Walla Walla, Victoria

SOAP
226 bxs, W G Irwin, Honolulu

SODA
2,617lb, Walla Walla, Victoria

SPICES
19 bxs, W G Irwin, Honolulu
25 pgs, Marion, Central America

TALLOW
10,242lb, Marion, Central America

WHITE LEAD
750lb, Marion, Central America

Boston Exports.

For week ending Aug. 31.

ACID
5 cbys, S K F James, St John, N B
20 cbys, F & E Gwain, Moncton
5 cbys, Mary E McDougall, Tignish

ASHES ZINC
52 bbls, Bostonian, Liverpool

BEESWAX
5 bxs, Catalonia, Liverpool

CANDLES
7 cs, Worcester, Halifax

DYESTUFFS
14 bbls, Cumberland, St John, N B
50 bbls, Hindoo, Hull

DYEWOOD EXT
9 bbls, Br Empire, London
40 bbls, Ethel Emmerson, Halifax

GLUCOSE
225 bbls, Br Empire, London

GLUE
6 cks, Br Empire, London
6 bbls, Worcester, Halifax

GREASE
40 bbls, Br Empire, London
42 hhds, Norseman, Liverpool
15 hhds, Cumberland, St John

LOGWOOD
60 bxs, Hermann, Antwerp

OIL
10 cs, Moselle, Port Williams
180 bbls, Annie Harper, Frederickton
100 bbls, Mary Rose, Yarmouth
330 cs, Myosotis, Cayenne

OIL PALM
20 hhds, Norseman, Liverpool

OIL SPERM
25 bbls, Bostonian, Liverpool

OIL TALLOW
255 tcs, British Empire, London

OIL CAKE
2,356 sks, Hibernian, Glasgow
723 sks, Norseman, Liverpool

PAINT
30 cs, Hindoo, Hull
5 cs, Kennard, Azores Islands

PITCH
25 bbls, 85, Paspebiac

STARCH
1,289 bbls, Norseman, Liverpool

STEARINE
20 hhds, Norseman, Liverpool

TALLOW
25 hhds, 25 tcs, Hibernian, Glasgow
80 hhds, Catalonia, Liverpool
109 hhds, Norseman, Liverpool

Philadelphia Exports.

For week ending August 30.

OIL LUBRICATING
260 bbls, Br Prince, L'pool
60 bbls, Switzerland, Antwerp

OIL CAKE
2,075 bgs, Br Prince, L'pool

TALLOW
100 hhds, 50 tcs, Br Prince, L'pool

Baltimore Exports.

For week ending Aug 29.

BARK
202 bgs, Ohio, Rotterdam
1,273 bgs, Enrique, Liverpool

BARK EXTRACT
25 bbls, Buenos Ayrean, Liverpool
1,110 bxs, Muenchen, Bremen
200 bxs, 10 bbls, Ohio, Rotterdam
20 bxs, Monarch, Glasgow

COTTONSEED MEAL
613 tons, Muenchen, Bremen

OIL ANIMAL
500 gls, Savonia, Rio Janeiro

OIL FISH
1,808 gls, Monarch, Glasgow

OIL LUB
9,630 gls, Muenchen, Bremen
925 gls, Missouri, London

OIL VEGETABLE
252 gls, Missouri, London

OLEOSTOCK
34,770lb, Maine, London

ROSIN
2,490 bbls, Buenos Ayrean, Liverpool
1,365 bbls, Muenchen, Bremen
95 bbls, Barrowmore, Liverpool
497 bbls, Hermann, Bremen

WAX PARAFFINE
14,642lb, Missouri, London

Wilmington Exports.

For week ending Aug 31.

PITCH
6 bbls, Alice Bradshaw, Hayti

ROSIN
3,500 bbls, Roma, Hamburg
4,280 bbls, Paquita, Hamburg

TAR
10 bbls, Alice Bradshaw, Hayti

SPIRITS TURPENTINE
605 cks, Roma, Hamburg

New Orleans Exports.

For week ending Aug. 29.

LEAD
1,904 pigs, Mariner, L'pool

OIL
20 cs, Stroma, Port Limon

SOAP
45 bxs, Breakwater, Puerto Cortez, etc
35 bxs, Harlan, Bluefields

SODA CAUSTIC
50 dms, Harlan, Bluefields

SODA SILICATE
50 cks, Harlan, Bluefields

Savannah Exports.

For week ending Aug. 31.

ROSIN
3,107 bbls, Elida, Rotterdam

Charleston Exports.

For week ending Aug 30.

PHOSPHATE ROCK
2,000 tons, Hungaria, Belfast

ROSIN
1,725 bbls, Karl von Dobeln, Hamburg
2,135 bbls, Lake Simcoe, Harburg
2,355 bbls, Teresina, Genoa

SPIRITS TURPENTINE
900 cks, Karl von Dobeln, Hamburg
2,133 cks, Teresina, Genoa

GOODS ON THE WAY TO THE UNITED STATES BY SAIL.

Calcutta

TO NEW YORK.

Lord Dufferin, 1,000 bgs cutch, 50 cs button lac
4,600 bgs saltpeter
Daniel I Tenney, 486 bgs saltpeter 3,500 bgs cutch, 100 cs button lac
Austriana, 2,498 bgs saltpeter, 2,706 bgs cutch
George Skolfield, 1,488 bgs cutch, 9,666 bgs linseed, 300 cs shellac
Anglo American, 2,933 bgs saltpeter, 4,998 bgs cutch, 240 cs button lac, 200 cs castor oil, 1,600 bgs ginger
Thiorva, 1,147 bgs saltpeter, 2,000 bgs cutch, 12,792 bgs linseed, 400 cs shellac
Sam Skolfield, 4,014 bgs cutch, 50 cs button lac, 400 bgs ginger
Assyria, 2,010 bgs saltpeter, 4,640 bgs, 3,250 cs cutch, 25 cs button lac, 500 cs castor oil, 1,424 bgs ginger
Bangalore, 22,765 bgs linseed

TO BOSTON
Patagonia, 1,316 bgs saltpeter

Cirgenti

TO CHARLESTON
Ercole, 500 tons thirds brimstone

TO PHILADELPHIA
Navigatore, 800 tons thirds brimstone
Orsoia, 700 tons thirds brimstone

TO SAVANNAH
Washington, 800 tons seconds brimstone

Hiogo

TO NEW YORK
St James, 1,448 pcls camphor
Undaunted, 746 tubs camphor, 895 cs oil camphor, 300 cs wax, 500 cs oil fish
Eclipse, 1,466 pcls camphor, 990 tons brimstone, 100 cs vegetable wax, 125 cs oil camphor, 54 cs cuttlefish bone

Hong Kong

TO NEW YORK
James G Bain, 250 pcls cassia, 140 cs essential oil, 117 cs gall nuts
Hallgerda, 1,000 pcls cassia, 650 cs Saigon cassia

Licata

TO CHARLESTON

Emanuele, 500 tons seconds brimstone

Singapore

TO NEW YORK

Liguri, 8,008 pcls gambier, 2,030 pcls sago flour, 1,681 pcls gum copal, 108 cs cutch

Elise, 1',774 pcls gambier, 1,268 pcls sago flour, 421 pcls tapioca flour, 2,246 pcls flake tapioca, 2,528 pcls black pepper, 253 pcls white pepper, 418 pcls pearl tapioca, 3,993 pcls gum copal, 419 pcls cube gambier

S R Lyman, 6,731 pcls gambier, 1,683 pcls black pepper, 849 pcls pearl tapioca, 844 pcls flake tapioca, 325 pcls gum copal, 90 cs essential oil

TO BOSTON

Thomas A. Goddard, 4,200 pcls gambier, 169 pcls Cube gambier, 336 pcls pearl tapioca, 169 pcls flake tapioca, 252 pcls black pepper, 51 pcls white pepper

Mystic Belle, 5,041 pcls gambier, 840 pcls sago flour, 211 pcls cube gambier, 169 pcls pearl tapioca, 168 pcls flake tapioca, 252 pcls black pepper, 35 pcls cutch

West Coast South America

TO NEW YORK

Wachusett, bgs nitrate soda
Republic,—bgs nitrate soda
Woon Sung.—bgs nitrate soda
Grandee,—bgs nitrate sada

TO HAMPTON ROADS

Heronimus,—bgs nitrate soda

RECORD OF VESSELS.

Port & Name.	Sailed.	Last Reported.
Calcutta.		
D I Tenney	May 8...	
Thiorva	May 10..	
Austriana	May 23..	
G W Skolfield	May 20..	
A American	May 23..	
Lord Dufferin	May 26..	
Sam Skolfield	May 30..	
Patagonia	June 24..	
Assyria	July 9...	
Bangalore	July 29..	
Girgenti.		
Washington	June —..	
Orsola	June —..	
Navigatore	June —..	
Ercole	July —..	
Hiogo.		
St James	April 18.	
Undaunted	May 13..	
Eclipse	June 30..	
Hong Kong.		
J G Bain	June 22..	
Hallgerda	July 12..	
Licata.		
Emanuele	July —..	
Singapore.		
Liguri	May 2	
T. S. Goddard	June 3..	
Mystic Belle	June 28.	
Elise	July 3...	
S R Lyman	July 11..	
W. C. South America.		
Heronimus		
Wachusett		May sailing
Republic		May sailing
Woon Sung		May sailing
Grandee		May sailing

The English Petroleum Markets.

London.—Not much activity has been observable in the market for refined petroleum oil since our last report; indeed, there has been a positive lack of animation towards the close, as the trade, confining their operations strictly to their immediate wants, and not purchasing in anticipation of future requirements, have been very reluctant to operate, so that only limited sales have resulted at some reduction from the rates previously current. Standard to prime white American on the spot has been realised at 5¾@6d, for September to December delivery at 6@6⅛d, and Russian at 5⅝d and 6d per gal respectively. American water white oil has now and then been sold cheap to clear out, and petroleum spirit has been difficult to move, but quotations in general remain unchanged.

In their circular of the 19th inst., Messrs. Mordaunt Brothers state that the total quantity of Petroleum "afloat" for London is 55,700 bbls against only 22,000 bbls in 1888; whilst the cargoes "loading" comprise 41,500 bbls, as contrasted with 65,000 bbls last year.

Petroleum Oil in London for the thirty-two weeks ended Aug. 19, with comparative stocks at that date:—

	1889. Bbls.	1888. Bbls.	1887. Bbls.
LANDINGS.			
Petroleum oil	556,941	545,428	475,556
Crude oil	15,656	12,201	7,066
Petroleum spirit	16,089	16,959	21,314
DELIVERIES.			
Petroleum oil	488,366	446,180	418,388
Crude oil	16,044	10,740	8,180
Petroleum spirit	19,005	17,929	19,684
STOCKS.			
Petroleum oil	173,453	164,606	155,895
Crude oil	5,197	5,625	4,364
Petroleum spirit	2,076	5,543	4,927

Stock account of Petroleum Oil in London, issued by the Petroleum Association from returns made by the wharfingers, for the week ending Wednesday, August 21:—

	Stock, Aug. 14. bbls.	Landed. bbls.	Total. bbls.
Dudgeon's	39,770	....	39,770
Palmer's	42,388	....	42,388
Rowatt's	12,163	....	12,163
St. Leonard's	32,191	7,070	39,261
Thames Haven & Abbey Mills	19,833	2,600	22,433
Atlantic	27,712	....	27,712
Totals	174,057	9,670	183,727

	Delivered. bbls.	Stock, Aug. 21. bbls.
Atlantic	1,219	35,551
Dudgeon's	3,167	38,221
Palmer's	1,435	10,728
Rowatt's	2,328	36,933
St. Leonard's	1,603	20,830
Thames, Haven & Abbey Mills	2,152	25,560
Totals	11,904	171,823

Liverpool.—The demand is on a somewhat narrow scale, and business consequently falls below the average; but prices are steadily supported, being 6½d per gal for American, and 6d for Russian oil, in any position.—*London Grocer.*

Cornering Cinnamon.

A meeting of proprietors and superintendents of cinnamon estates was held at Colombo on July 20, presided over by Mr. W. Jardine, to consider the means to adopt to decrease the output of cinnamon chips, and for suppressing the manufacture of cinnamon leaf oil. The following resolutions were passed in support of the object for which the meeting had been called: "That this meeting deems it desirable to give up the preparation, sale, and export of cinnamon chips, which, it is believed, helps materially to keep down the price of quill cinnamon." "That in order to give effect to the foregoing resolution a committee be appointed to draw up and circulate amongst owners of cinnamon properties a letter for signature of proprietors and representatives of proprietors, binding themselves on their honor to stop all scraping of chips from their cinnamon for a period of two years from October 1, 1889, and to adopt such other measures as may seem to them necessary to secure the end in view." It was also proposed "That all who sign the letter referred to above should also agree not to permit the manufacture of cinnamon leaf oil upon their properties, or allow the removal of leaves for that purpose; in support of which proposition it was pointed out that good cinnamon oil in 1877 fetched 4s 8d per oz.; the same quality of oil in 1886 fetched only 1s 8d per oz. Many of the stills in consequence had stopped manufacturing cinnamon oil. The last resolution, however, was ultimately held over. The meeting appears to have been very representative and unanimous and only two planters are reported as having refused to join the movement. From a financial point of view these two may probably find reason for congratulation.—*Chemist and Druggist.*

The Imported Glass Workers.

A dispatch from Washington, D. C., relative to the Jeannette case, said: "A letter received at the Treasury Department from District Attorney Lyon, explains that press of business has prevented him from complying with the request for additional information, but that he will write the department further on the subject in a few days. The intimation by officials of the department that there is no machinery available for the arrest and return of immigrants found to have come to this country under contract, has excited considerable curiosity. It looks as though the law was deliberately constructed to prevent the return of such immigrants. Under the law, immigrants who are allowed to land and go their way cannot be dealt with, though the law prescribes that they shall be taken into custody and returned to the country whence they came at the expense of the owner of the vessel which brought them here. Nothing of the kind can be done without due process, and there is really no authority who can act in the matter." Further than this there are no fresh developments in the case.

Since the above was published, information has been received in New York to the effect that District Attorney Lyons has mailed his final report about the imported glass workers to the Treasury Department. This report is in answer to a request from the department asking him to say who, in his opinion, brought the English workers to this country. From the evidence in his possession the District Attorney could not fully answer this question, and in his last letter, which is now in Washington, he so states. He replies briefly that he could not ascertain who brought the men to this country, and had already submitted all the evidence he could get. What will be done now nobody can tell. Some persons think the department will drop the matter on account of insufficient evidence to prosecute the violators of the law. The law, they claim, is also defective, and there is no way of sending the men back to their homes.

The District Attorney also recommends that the case now be turned over to Special Agent R. D. Layton, of Pittsburg. Mr. Lyon has done everything he could in the line of duty in the matter, and by so doing had to neglect other official matters. Since he took hold of the case the special agent, who is commonly known as Immigrant Inspector, has been appointed, and it should be turned over to him. Mr. Layton's business is to investigate alleged violations of the alien contract labor law. He was called in to consult, by Mr. Lyon, but in his official capacity the special agent has done nothing in the case. If the department turns it over to him he will likely push it to a speedy settlement one way or the other.

The men who were brought over are still at Jeannette. Those who are prosecuting the case are keeping a watch upon them to see that none of them leave the place.

Window Glass Workers' Wages.

The Window Glass Manufacturers' Association of the West, says the *Commoner and Window Glass Worker*, has followed in the footsteps of the Eastern green glass manufacturers, and have formally "resolved" not to grant the advance of wages of 5½ per cent., which the workmen have asked for. According to the press, it appears that they were scared into it by a firm of jobbers in Cleveland, O., who threatened the manufacturers that if they started on September 1, these jobbers would cut the price of glass 15 to 20 per cent. in order to get rid of their stock on hand. A bluff of this kind would be serious, if the amusing ends of it did not stick out all over its surface, and it suggests two comments to a man up a tree. The first of these is that the claim of the manufacturers that the workmen have practically been their masters is not founded on fact, because by allowing their action as manufacturers to be controlled by middlemen, they acknowledge the supremacy of the brokers, and almost in so many words say, "they run our business, not us." At the same time these same manufacturers when they meet together call the brokers "a necessary evil" which must be endured, knowing very well that cut prices in glass are more apt to come from brokers than from manufacturers. The second comment which this bluff of the Cleveland brokers arouses is that it is too shallow even to be called a bluff, and we are of the opinion that if the manufacturers cared to quote themselves correctly they were not scared in the least by it. The Cleveland firm are heavy dealers but at the same time they are business men and they will never sacrifice a dollar if they can help it. If they should cut prices as they threatened they would only cut off their own nose to spite their face, because they would be the principal sufferers. While their stock may be large, and it probably is, as they did like others last spring, loaded up in expectation of better prices this fall, they have not enough glass of suitable sizes on hand to make a new basis of prices 15 to 20 per cent. below present rates. The transparency of their bluff it as apparent as the headlight of a locomotive on a dark night in a thick woods.

It is ridiculous and humiliating to see the glass manufacturers bowing to the edict of this broker firm. The manufacturers know the county, if indications do not fail, will consume thousands more boxes of American glass this year than last. They know, too, that their salvation lies in perfecting a strong organization, not to resist a petty advance of wages asked for by the workmen, but in maintaining prices within the limit of tariff protection, which would make the biast profitable for all of them. They know, too, that while the Jeannette tanks and a number of pot factories will start up promptly on and immediately after September 1, that these firms, especially Jeannette, are no more apt to increase discounts than they themselves are. Knowing these things it strikes us that ordinary business sense should teach them that their proper mode of procedure would be to pay the wages asked by the workers, and put all their surplus energy into making an association that will be of some practical value to him. A contest with the workmen will result in the defeat of the manufacturers, and they know it, too, so that it seems strange a majority of them should feel disposed to spend their time and money in a useless struggle. It is our opinion still that the factories generally will be in operation by September 15, or soon after.

Cinchona and Quinine Production in India.

In a blue book just issued, giving various statistics to exhibit the material progress and condition of Iddia during the year 1887-88, the section devoted to agriculture contains some information respecting cinchona cultivation and its results. It appears that the area then under cinchona in the Government plantations of the Darjeeling district in Bengal was 2,208 acres, on which were growing 4,851,000 cinchona trees in permanent plantations. It is stated that more than one-half of these trees belonged to the calsaya or quinine yielding variety, and during the year 424,000 trees of this variety were planted out. The proportion of succirubra trees is also stated to be more than one-half of the above number, so that there is evidently some inaccuracy in one or other of these statements. The number of succirubra trees uprooted for their bark was 375,000. The total crop of bark obtained was 290,000 lbs. in a dry state. The whole of that supply, with the exception of 855 lbs., was made over to the factory, which manufactured from it 331 lbs. of quinine sulphate and 6,916 lbs. of cinchona febrifuge. Taking the yield of quinine sulphate from succirubra bark at 1.5 per cent, the quantity consumed for producing the quantity above mentioned would be 22,566 lbs., leaving 267,079 lbs. for the cinchona febrifuge, the yield of which would thus amount to about 2·5 per cent. of the bark used. That would be but a poor yield for good succirubra bark, and if it represents the actual contents of alkaloid, the bark must have been of poor average quality. The cost of the plantations is stated to have been 76,700 rupees, but that was irrespective of interest on capital. The money yield of the factory at the rate of 14 rupees per pound for febrifuge and 20½ rupees per pound for quinine was during the year 137,510 rupees on the products issued to the Government department and to the public; but some part of that supply appears to have been drawn from the produce of the previous year, since it was larger than the total quantity of products manufactured, while there was also at the end of the year a stock of bark, more than half calisaya, amounting to 196,000 lbs. It is difficult, therefore, in the absence of further data to arrive at any estimate of the actual relation of the cost of production and return realized.

Mention is made of a new method of manufacturing quinine by steeping the powdered bark in cold oil as having been perfected during the year, and it is said to yield a "particularly good quinine," but no data are given by means of which an idea can be arrived at as to the cost of this method and its efficiency for the extraction of the alkaloid from the bark. It may, however, be pointed out that the price above quoted for quinine sulphate of 20½ rupees per pound would make the quinine about double the price that this article has been sold for in England and America during the past few months. That also is taking the rupee as being equal to only one shilling and sixpence, and so far there does not appear to be any great advantage in the pro-

The area under cinchona in the Government plantations of the Nilgiri district in Madras is stated to be 908 acres, on which were growing 1,740,000 cinchona trees in permanent plantations. This is a smaller number by 198,000 than was returned in the report of the previous year, as part of one plantation had been abandoned and the trees uprooted. The crop for the year amounted to 93,000 lbs. of dry bark, of which 7,000 lbs. was issued and the remainder stored, making the total quantity in stock at the end of the year 251,000 lbs. It is the intention to convert this bark into quinine sulphate and cinchona febrifuge, on the plan that has been adopted in the Bengal plantations, and buildings with machinery for that purpose are being erected. The outlay on the plantations during the year is stated to have been 72,160 rupees, but in respect to return, it is merely stated that the 7,000 lbs of bark issued was valued at 1,200 rupees. Here again there are no data for any estimate of the relation between cost and return.

The area under cinchona on private plantations is retuened at 1,355 acres in Bengal, 6,444 acres in Madras, and about 2,000 acres in Coorg and Mysore. The export of cinchona bark from India has risen from 1,286,900 lbs in 1886-87 to 1,449,313 lbs in 1887-88, and to 3,074,098 lbs. in 1888-89.—*Phar. Jour. and Trans.*

The Cutch Industry.

Next to rice, cutch is the most important article exported to Europe from Burmah. The cutch trade has become more and more important during the last 20 years, and although its prosperity received a temporary check in 1885-86, as a result of the annexation of the upper country, it has now fully recovered its former activity, and the production is as large as, if not larger than, that of previous years. And there is no doubt that in the same measure in which order and tranquility increases throughout the country, and with the opening of new commercial routes, the manufacture of this product, which is so abundant in the forests of this country, will grow more and more. The cutch trees are found throughout the vast forests which cover the surface of Burmah. The wood has a dark red exterior, and much resembles mahogany. Cut into small pieces and boiled in water it is reduced to a paste called "Sha" in Burmese, which forms the cutch. This cutch is largely manufactured by the inhabitants of the villages fringing the borders of the forests. Cutch-making is a very simple process, and only requires a pair of strong arms, an axe, and a vessel for boiling. In October, at the end of the rainy season, the Burmese go into the woods with their families in bands of three to six By preference spots are chosen where clusters of strong and tall trees are found. Small holes are then cut in the earth, in which to place the vessels. Thereupon the trees are felled, hewn into logs, and peeled until the core is reached, which is immersed in water and boiled. As soon as the resulting paste has attained the requisite thickness it is emptied out on a mat and dried in the shade. The best qualities are next shaped into the tablets met with in commerce, and measuring 12 in. x 7 in. x 5 in. The color of the cutch varies, according to the age or quality of the tree and the duration of the boiling process, from red or dark red to black. The bright red and red and red grades are considered the best, and are fashioned with much more care and in smaller tablets than the others. They are, along with betel and areca nuts, a favorite masticant of the natives. The dark red and

black grades are especially made for the European and American markets, and it is these varieties that are bought up by the Rangoon merchants. Pure cutch, properly dried, should be of a regular and even shape, bitter and acrid taste, and of a flavor resembling that of opium. The color is more appreciated the nearer it approaches bright red. Enormous quantities of soft or elastic cutch are thrown on the market, because the boilers are in too great a haste to take advantage of a favorable market to properly dry the cutch. A product locally named Than-sha is sold as an imitation of true cutch. It was first brought out about eight years ago, when it sold at 10 rupees per 100 "viss," but during the last season it has been worth 25 rupees per 100 "viss." Other varieties of cutch are mixed with fibrous matter, sand, or clay, or are prepared without regard to the quality of the wood or the boiling period. These grades are known as Sat-sha, Neylan-sha, Revenoon-sha, and Pet-tok-sha. Cutch mixed with sand or earth is easily known by weighing or tasting it. The Chinese never buy cutch from the Burmese without previously sorting it. The prices they pay run from 37 rupees per 100 "viss" for good hard cutch, to 20 or 30 rupees for soft grades, and from 25 down to 8 rupees for adulterated stuff.

Official Report on Baking Powders

The baking powder investigation which has been conducted under direction of the chemists of the Department of Agriculture has been completed. The analysis of a large number of samples of various baking powders, and the conclusions derived therefrom, the report says, are not such as to create any general alarm lest the American people should suffer injury to health from the use of baking powders. Continuing, the report says: "At the same time they show conclusively the error of the popular impression prevailing hitherto that all the chemicals used in the production of baking powders are expelled during the process of baking." The analyses of twelve powders are given, their selection being based upon the proportion of available carbonic acid, which, in conjunction with the minimum of alkaline residue, is the great test of excellence in baking powders. Although the investigations show that even with the best of tartrate powders the residue remaining in one loaf of bread prepared with it was of the same character as seidlitz powder, and in quantity exceeded that of an ordinary seidlitz powder by over 50 per cent; still, in this, as in most cases, the character of the residue in the proportion found can hardly be regarded as generally hurtful. The report says an exception ought to be made in regard to the class of powders containing alum, to which there is more serious objection. The report adds that the American people pay at least $25,000,000 a year for baking powder, and that the cost of it to the manufacturers is less than one-third of that amount.

The English Government and the Lard Question.

The following information respecting the manufacture of lard in the United States is extracted from a memorandum recently issued from the Agricultural Department of the Privy Council Office in London:

It appears from a report just published by the United States Department of Agriculture and prepared under the direction of the chemist at the head of the division of chemistry, that lard is very largely adulterated with cottonseed oil, and fat from animals other than pigs. Lard is technically the fat of certain parts of the pig. This is the British idea of lard, but according to the Chemist of the United States Department of Agriculture, lard is a term applied to the fat of the slaughtered hog, separated from the other tissues by the aid of the heat; but he admits that the heads and much of the viscera and other parts of the animal are put into the "rendering tanks," and, indeed, by the definitions of the Chicago Board of Trade, any part of the hog containing fat can be legally used for the manufacture of lard.

With respect to the fat of other animals than pigs, it is stated that oleo-stearine, made chiefly from the caul fat of cattle, is employed to a considerable extent to adulterate lard. This is produced in open kettles, the tallow resulting from this is placed in cars in a "granulating room," where it is allowed to remain at a temperature of from 80° to 90° Fahrenheit. The contents of the cars are then mixed and placed on a revolving table, where they are made into cakes. These are wrapped in strong cotton cloths, and placed in a press, where a gradual pressure at 90° Fahrenheit., becoming very strong at the end, is applied for one or two hours. The expressed oil, known as oleo-oil, is used in the manufacture of butterine. The stearine is removed from the press as white hard cakes, and is used for adulterating lard. It is said concerning beef fat that before the day of oleo-margarine all fat rendered from the tissues of cattle was known commercially as tallow. Since then differentiation has taken place, and the term tallow is no longer sufficient to designate the several products obtained from the rendered fat of the beef. There is first "butter stock," which is rendered from the caul fat at a low temperature, and from which is manufactured by means of pressure, first, oleo oil; second, oleo stearine, beef stearine. A fine article of mutton tallow is also sometimes used in lard, but the objection to the flavor is sufficient to limit its use to a small amount.

The term "refined lard" has long been used, says the chemist, to designate a lard composed chiefly of cotton oil and stearine. The largest manufactures of this kind of lard have now abandoned the term, and are using the label "lard compound" instead. This, it is added, is but just to the consumers of this article, who are likely to be misled by the term "refined lard." The natural lard in a state of fusion, the stearine from beef fat, and the refined white cottonseed oil are measured in the proper proportions and placed in a tank at a temperature of 120° to 160° Fahr. These various ingredients are thoroughly mixed by means of paddles worked by machinery. After it is mixed the compound lard is passed into artificial coolers, where it is chilled as soon as possible. From thence it is run off into small tin cans or large packages and prepared for market. In external appearance and to an unskilled person it is said that adulterated lards are not appreciably different from the pure article. "An expert, however, is generally able to tell by taste, odor, touch and grain, a mixed lard from a pure one. There is usually enough lard in the adulterated article to give it the taste and odor of a genuine one. Mixtures of fat have been made, and perhaps sold as lard, which contained no hog's grease whatever."

Alluding to statements that other adulterants of not so harmless a nature are used in making lard, the chemist remarks: "Among these substances, dead-hog grease, or dead-hog stearine, is the one most frequently mentioned. The term dead-hog grease is used to indicate the oil or lard obtained from animals which die of disease, or are smothered in transportation, or die on the way to the slaughtering houses. The fat of animals recently dead, unless death takes place from disease, and taken before decomposition sets in, has chemically the same characteristics as that derived from animals slaughtered. If, however, the animals have been dead some time, a considerable decomposition of the glycerines takes place, and the amount of free acid in the fat is thus largely increased. Such fat also exhales a distinctly unpleasant odor, by which it can be readily detected from genuine lard." Pea-nut oil and other vegetable oils are also mentioned as lard adulterants, but of these the chemist remarks: "While it may be true that many attempts have been made to use the above substances in the adulteration of lard on a small scale, it is also quite true that such attempts have never attained any importance from a commercial point of view."

"The Exhausted Oil Territory" and a Remedy.

Written specially for the OIL, PAINT AND DRUG REPORTER.

There is much in common between the production of gold from an auriferous territory and the yield of petroleum from an oil territory.

The first results in the way of productiveness are alike in each case.

Wonderful nuggets, pockets and pounds of pure gold rewarded the search of the pioneer gold hunters in California in the early days of '49ers, as with a knife, spoon, piece of horn, a tin pan, a shovel and pick, then cradle and long tom, to be succeeded by the sluice and last of all the hydraulic system, they successively adapted the means simple and primitive at first to the varying conditions required to suit the varying circumstances of river, dry "diggin's," hill or mountain, in which the precious ore was found to exist. Drifts and tunnels were bored thousands of feet into the ribbed rocks of the mountain side horizontally, or shafts were plunged deep down through auriferous earth or rock in pursuit of golden treasure, thousands of feet below the surface of the earth.

The early gold seekers were most earnestly in pursuit, each of them, of a "strike" that would lead to sudden fortune, steady persevering effort that called for patient and persevering industry with the use of proper appliances in the way of machinery was but little thought of and almost totally ignored, but in place of this there was a wild and reckless rush and scramble from one end of the territory to the other, and when a rich pocket was found it was speedily (as supposed) dug out and the lucky miner hastened to some other rich spot of which rumor reached him from a hundred miles away.

And in most cases he left more wealth of gold untouched in the earth behind him than in his haste he had secured, or would find in the next El Dorado to which he hurried his way. And so it was that in the days of '49 many more miners were engaged in migrating from place to place than were occupied in the work of gold digging. It was an experience of the writer in those days on his first entree into the "dry diggins" near where Auburn now stands to meet the first veteran gold digger or "old miner," as they were then termed because of the fact that he had achieved a residence of some sixty days in the gold regions. There were two of these diggers, clad in well-worn buckskin suits and moccasins, slouched hats crowning long unkempt hair that flowed down their shoulders, lank faces covered with a full beard, a case knife in one hand and an iron spoon in the other, and their rifles leaning against trees near by. They were upon their knees in the bed of a little dry creek or "arroya," scratching with their knives or scraping with their spoons for the bits and "chispas" of gold that ever and anon rewarded their unskilled labor.

"Well, this is the way you mine for gold, is it?" was the query addressed them. Very slowly they faced toward me (they were from Oregon).

"Stranger, hev yer jes kem in the mines?"

We pleaded guilty. A cool and contempuous survey followed, and then, with deliberate utterance, these words:

"Well, stranger, you had jes better go back agin—the mine is all dug out."

And this incident is brought to mind by the wise utterances of those who are constantly assuring us "the oil territory is nearly or quite exhausted," and we shall soon have to supply the world with some other illuminant or the manufacturing establishments with a substitute for natural gas.

What were the facts in reference to the yield of the gold mines? Why the very eagerness and recklessness of the pursuit and the methods employed have been found of more difficulty to remove and overcome than was required for the original labor to possess and unearth the gold which in many cases was covered almost under mountains of debris or flooded with refuse by the miners that required removal before the buried gold could be reached again. And even rivers have been turned from their channels and great hills worked down to bury the precious metal out of sight. And hundreds upon hundreds of millions of gold has been dug from these same deposits enriching the world since the cry was sent up, and that with a sincere faith, "the mines are all dug out." And such is the history of the development of the oil territory. The work was one of reckless haste as well as of reckless waste; no intelligence was used; no precautions were taken; no judicious system of work was systematically made use of; each man was for himself, any instrumentality was adopted that it was supposed would most quickly reach the "sand," derricks were placed in close just position, no conferences were held to compare facts and observations for mutual benefit, and the rather profane proverb found full illustration, "every man for himself and the devil for us all." Every one at all conversant with the wild disorder and confusion of those early days of oil knows the picture is not only not overstated but placed far below the truth.

Now, what has been the result in California? We hear now but seldom, if at all, of rich strikes and pockets of gold. The first ripe fruit was gathered, the hurry and the bustle is over, and now that forty years have passed away since the utterance that greeted the writer, "the mines are dug out," was made, what is the situation? Capital has been enlisted, scientific methods and machinery are employed, organized labor and well disciplined management has taken the place of disorder and clamorous confusion, and without noise or trumpet sound $20,000,000 annually rewards the skilled labor of the gold miner, and this will doubtless continue for ages or generations to come.

And is not the oil industry a parallel case? Except that in the one case, the gold was almost under observation to the human eye, and means to exhaust it were much more easily and certainly attainable than is possible in bringing the oily treasure from where it is hidden, thousands of feet deep in the bowels of the earth.

And the same or greater prodigality of ignorance, recklessness, wastefulness, eager haste and selfishness attended the first discoveries and developments of the oil field than ever attended the opening of the auriferous deposits of California, for the writer having acted a part in both and having been a witness of that whereof he writes is cognizant of the facts from an actual observation and participation. The exhaustion of the oil fields is the text—their speedy exhaustion.

Why, the gold fields were but of limited extent, either in length or breadth, the pursuit of gold one of the most alluring and enticing of all pursuits—no possibility of any speck of the precious dust removed ever being replaced again from natures fierce laboratory below and yet for for all practical purposes the mines are unexhaustable—and the writer would pledge himself from personal knowledge to-day, to place an explorer in the midst of an unworked gold placer of hundreds of acres.

And we have well certified knowledge of oil territory that reaches from the lakes almost to the Gulf of Mexico, of which portions and small portions only have been worked, and in all the first years of oil mining and boring in a way more superficial than California gold mining, gathering from it where most abundant, superficially running it over and altogether abandoning the territory where no rich pocket of oil was found. With open borings left unplugged for the entrance of rivers of water both from the surface and the interior, often deserting a well that would have yielded a rich reward to perseverance. Crude implements and apparatus backed with cruder knowledge—rock strata unbroken and undisturbed by the wonderful effects of the "shooting" of the later time, and then hurrying on to new fields to gather in more quickly the treasure of a "gusher" from a more generous "sand."

But now that the supply is evidently decreasing, or rather that in fields that have "gushed" forth their surplus that has been the accumulation of thousands of years, the oil does not so vigorously court an escape from its imprisonment. Rather than raise the false cry of exhaustion it will be much wiser to go go back over the track of desolation that has partially been made in the older territories and combating the obstructions that have been placed in the way with intelligence, industry and perseverance, aided by the improved apparatus now employed, gather up the riches that have been left behind with a revived interest and industry in the old territory, not even ignoring Oil Creek itself.

The writer has been long urging this upon the attention of oil producers, with the full conviction that not only is much oil left behind, but this has also been added to in the past by the propulsion of further supplies to take the place in the storage rocks vacated by the oil discharged from them in the past by the propelling power of the gas, or the pressure from other agencies that ever force it upward for escape toward the surface.

Not that these depositories for oil can in a brief time be replenished equal to the former abundance that must have taken nature unknown decades of time to produce, but that quantities may be found that will continuously yield a paying reward to intelligent and well directed effort. And emphasis has been given to these claims by the actual resumption of production in some of the very oldest of the abandoned territories, of which the recent well, bored by Jonathan Watson & Co. on Oil Creek not far from the original Drake well, as stated in the REPORTER, giving a yield at the rate of nearly 3,000 barrels per day. Another notable instance is the present productiveness of the territory from which the revenues of "Coal Oil Johnny" came that were so profusely and lavishly expended. This oil farm was entirely abandoned and deserted as to oil production for years, but is now producing one hundred barrels or upwards per day. The territory also near Pithole has been reclaimed with success as well as the once productive property of the "Columbia Oil Co., on Oil Creek.

In the Bradford region also, efforts to clean out abandoned wells have met with success, and there remains but little doubt that in the once fabulous territories tributary to the Allegheny river, concerted effort, judiciously directed with capital and proper machinery, aided by the shooting, which was never applied to many of the old borings that are abandoned, results will be reached that, if not equaling the yields of the old gushers, will be amply remunerative to those who have the means and enterprise to undertake the work.

And these are fields of greater promise also, because the storage tanks, pipe lines, &c., now exist, to give encouragement and profit to the enterprise. Means should be taken and methods applied to exhaust the overflow of water, which has doubtless in many cases taken possession of the storage "sands," in which the oil was originally held.

And further, it is a fact that a great many wells were abandoned that would have been or were a success, from the inroads of water, either from their own vicinity or let in upon good producing territory from the numerous abandoned wells bored by discouraged operators.

The imperfect methods of packing with the leather "seed bag" filled either with oats, rye, flaxseed or other packing material led to the discourgement of many well owners of even productive wells. It was sometimes the case that on drawing the tubing for necessary repairs it would require the working of the pump continuously for from 48 hours to six weeks before the inroad of water could be overcome and oil again yielded, and when oil was at a low price many such wells were abandoned.

Hence a concerted effort or a combination of operators, or better still, an organized company with capital that would secure for it field a wide area of oil territory, would doubtless find a rich remuneration in adopting some heroic measures to exhaust this underlying volume of water which would most assuredly give room and place for the re-entrance of both oil and gas in these once productive sections. So that while the figures show a decline in production of some 7,000,000 barrels from 1886 to 1888, it gives no reason for the dark prognostications that seem to impress the minds of some scientists and statisicians. To the mind of the writer it only evidences that a better day is coming for the oil producer.

It will involve a better price for the product of his labor and also the economic and wise manipulation and preservation of one of the greatest blessings to man, that has been handled with reckless waste and indifference on account of its abundance and cheapness, and is a product for the comfort of rich and poor, for which all can afford a more generous outlay.

It has long been the cheapest article that ministers to the wants of man. A. C. F.

DRUG MARKET.

Note—*Our prices are for large lot except when otherwise specified, and buyers of small quantities must expec to pay an advance on these figures.*

The prices current will be found on pages 49 and 50.

TUESDAY EVENING, Sept. 3, 1889.

Although this has been a broken week and, moreover, marks the end of one month and the beginning of another, jobbers have been kept very busy filling orders and, if anything, the volume of business has been larger than during several preceding weeks, in all of which trade was good. Advices from London state that business has been greatly interfered with by the dockmen's strike and the effects of that trouble are beginning to make themselves felt here, although not seriously as yet. The last drug sales in London prior to August 24th, passed off very quietly. Rhubarb and musk sold there at an advance, foenugreek, cummin seed saffron, peppermint oil, and golden seal were higher; aloes, cubebs, chamomiles, cardamoms ipecac and insect flowers were lower.

In this market the following changes have occurred during the week :—

ADVANCED.	DECLINED.
Quinine, 2d hands	Castor Oil
Manna, Small flake	Cuttle Bone
Iodine	Balsam Tolu
Iodide Potash	Cascara Sagrada
Iodoform	
Oil Cassia	

Opium.

There is a somewhat easier feeling to be noted in the market for opium, which is due in part to the absence of important demand, but more particularly to bearish influences which are exerted for the purpose of inducing the holders of three lots to part with their stock at low prices. Nominally the quotations are $3 20@3 25 for standardized, though it is intimated that less would buy. On the other hand we hear $3 17½ was bid and refused for 10 cases and upward. Smyrna reports intimate that by holding off buyers may do better there by-and-by, but as that market is somewhat above the parity of prices quoted here, this information is of little consequence, unless it should be followed by a marked decline in the primary market.

Quinine.

The favorable result of the last bark auction stimulated the demand for quinine from consumers here, and during most of the past week an active business has been in progress. The sales, however, have been almost wholly of small lots, the speculative interest being apparently dormant for the time. The reported transactions foot up about 500,000 ozs, at 27½@28c, the bulk however, having been placed at the inside figure. At the close the market was rather quiet, but the feeling was very firm. The nominal quotations are 29@30c, but some outside lots which have been held here for a long time by speculators are procurable at 28c. The available supply here, it is said, has been greatly reduced by the purchases of the past few weeks, and some agents are said to be without stock. The arrivals too have been comparatively light for several weeks. If the bark sale at London next Tuesday shows an advance, much higher prices for quinine are expected to prevail here. The shipments of bark from Ceylon to London from October 1, 1888, to July 25, 1889, were 8,684,835 lbs, against 9,376,702 lbs for the corresponding period in 1887-88, and 12,062,917 lbs for the same time in 1886-87.

Receipts of quinine for the week.....	27,000
Since Jan. 1.....	1,845,126
Corresponding period last year	1,171,200

Miscellaneous.

Alcohol is somewhat firmer as the result of rumors that negotiations have about been completed for the admission to the Trust of one of the outside distillers, the more important of the two concerns representing the independent interest. Should these reports be confirmed, and they seem to be pretty well founded, higher prices for alcohol and cologne spirit may be expected to be announced at once. At present there is an active demand, which is supplied at $1 98@2 08, as to quantity.

Refined borax is still very scarce on the spot, and the small lots procurable command 9⅝c. For forward delivery less is accepted.

Castor oil is lower, as the result of a slow demand and fresh competition. The quotations now are 14½c in barrels and 14¾c in cases.

Citric acid is dull and prices are more or less nominal but without quotable change, both domestic and English being quoted at 42c in barrels and 42½c in kegs.

Cod liver oil, Norwegian, is in increasing demand, and the tone of the market is firmer, though previous prices yet prevail. We note sales of 15 bbls at $23.

Cuttle fish bone has declined to 21c as the result of competition. Business is of a retail character.

Fish sounds, Bombay, have advanced in London on account of scarcity, and are firmer but not quotably higher here. Small sales are making at 32@40c, as to quality.

Hops remain easy which fact seems to have brought out a better demand from consumers

SULFONAL-Bayer

Manufactured by the
FARBENFABRIKEN, formerly Friedr. Bayer & Co., ELBERFELD.

SULFONAL IS PROTECTED BY UNITED STATES PATENT AND TRADE MARK.

August 1st, 1889. We quote: per oz

Sulfonal-Bayer, in oz. bottles	$1.35
In lots 25 ozs., " "	1.25
" 100 " " "	1.20

In ½ ounce bottles five cents per ounce additional.
We also prepare Tablets and Pills of Sulfonal-Bayer.

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1 oz. bottles	$1.00
In lots of 25 ozs.	.95
" " 100 ozs.	.90

We prepare Pills of Phenacetine-Bayer containing 2 grs. 4 grs. and 5 grs. each.

W. H. Schieffelin & Co.,
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NEW YORK
Quinine and Chemical Works, LIMITED
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MANUFACTURERS OF
QUININE, ACETANILID
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STRONG COMPETITION
Has Resulted in Lowering The Quality of
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The high standard of the **"MALTESE CROSS"** brand, however has been fully maintained and is still the finest quality that comes to this market.
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ROSENGARTEN & SONS, 12 Gold Street New York
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Quinine, Cinchonine, Cinchonidine, Morphine, Codeine, Aqua Ammonia.	Sulphate and other salts of	Ammonium, Potassium, Sodium, Silver, Ammonium, Ether,	Bromide. Nitrate.

Hypophosphites, Purified, Bismuth, Subnitrate, Spirits of Nitre, C. P. Acids, Resublimed Iodine, Tannin.

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MANUFACTURING CHEMISTS.
Mannheim, Germany, and 49 Cedar Street, New York.
Sulphate of Quinine,
Acetanilid, [Antifebrin.]
Muriate of Cocaine, Boehringer.
WRITE FOR SPECIAL QUOTATIONS.

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OFFER TO THE TRADE THEIR STRICTLY PRIME
QUININE
on spot and for future delivery, in quantities to suit at owest market quotations.
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CARBOLIC ACID
Liquid for Disinfecting.
All Strengths.
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THE SCHOELLKOPF ANILINE & CHEMICAL CO.,
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SAPONE D'OLIO D'OLIVO F. GUARANTEED PURE.
Pure White
CASTILE SOAP.
Made in Italy out of the best quality of stock, equal to Contis brand, while the price is much lower.

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JAS. E. DAVIS & CO., DETROIT, MICH.
R. A. ROBINSON & CO., LOUISVILLE, KY.
LANGLEY & MICHAELS, SAN FRANCISCO CA
STALLMAN & FULTON, NEW YORK

Polar Star Norwegian Codliver Oil
FRENCH, RICHARDS & Co.
Proprietors of
PURE BUCK LEAD.
Philadelphia, Pa.

ROGERS & PYATT,
80 Maiden Lane, New York.
Manufacturers of
Bleached Shellac & Spirit Varnishes

but the improvement is hardly perceptable. We quote:

	Cents
State, 1888, best	15 @16
State, do., prime	13 @14
State, do., common	9 @11
State, 1887, best	8 @—
State, do., good lots	5 @—
California, 1888, choice	13 @14
Do. common and prime	11 @12

Insect powder is moving fairly into consumption on jobbing orders at the former range of 30@35c.

Iodine has fully recovered from the late break. Cables from London, yesterday, announced that the syndicate has reestablished the price of 9d, which is taken here as an indication that they have settled their difficulties, or brought the outsiders to terms. As the pool would only sell in a small way at the late low prices the manufacturers of the preparations did not succeed in getting enough stock to enable them to receive any benefit from the sharp reaction. They have, however, restored their quotations to the figures ruling on August 1, namely, $2 65 for iodide of potash, $4 for iodoform, and $3 30@3 35 for resublimed iodine.

Quicksilver is meeting with a moderate demand at steady and unchanged prices. We quote 70@72c as to quantity.

Balsams.

Although first hands exhibit firm views, obbers of balsam copaiba continue to quote low prices. They find only a moderate demand, however. Balsam tolu has declined to 23@29c, at which a moderate jobbing demand s reported. Balsam fir, Canada, is a shade firmer, owing to reports of a small crop. Nominally $2 25 is quoted.

Barks.

Advices from San Francisco report a firmer market there for cascara sagrada, but a rather bearish tone pervades the spot market, and prices are a shade lower, without increasing the interest of buyers. While 10@12c are the nominal quotations for prime thin bark on the spot, it is said that 9c has been accepted for 2,000 lbs, and that further lots are available at the same figure. There is a large supply of inferior quality, some of which (thick, unsightly bark) is procurable down to 6½c and might possibly be bought at less. In other barks we find no fresh features of interest.

Essential Oils.

Cassia oil of prime quality is said to be very scarce. Holders demand $1 15@1 17½ and though we heard of a sale to-day at $1 10 it is doubtful if any more could be had at that figure. Stock that is said to be adulterated more or less heavily, can be procured down to 80@90c.

Peppermint oil in bulk, particularly Western, has been quite active during the week, and prices are a shade higher. We quote Western at $1 90 @2 and Wayne Co at $2 10@2 20 as to holder, quantity and quality. Case oil is also firmer, recent sales for export having greatly depleted the supply. We hear of nothing now offered below $2 60.

Pennyroyal oil at 80@85c is meeting with a good seasonable damand.

Sassafras oil continues to show an improved tendency and 44c now seems to be the inside price, while in a jobbing way 45@47c, as to quantity, is demanded.

Wintergreen oil also rules firm under a good demand and limited supplies.

Gums.

There is not much in the way of news to be written regarding gums. A fair demand for the leading descriptions prevails, and prices are well supported. Camphor is rather easy and though prices are without quotable change, the lack of demand and increased supplies might induce holders to make concessions on large orders. Chicle has been somewhat unsettled during the week, but after declining to 32c the market has fully recovered, closing at 36@37½c. Sales are reported of 8,000 lbs within the range of 32@36c, the bulk selling at the outside figure.

Roots.

Aconite root is in small supply and is very firm. Ginseng is scarce but as there is little inquiry prices are not affected. Golden seal is somewhat unsettled but there is very little demand. Some holders decline to shade 42c for spot stock. German dandelion is very scarce and is firmly held at 11@12c. Sarsaparilla is without change. Serpentaria remains firm but neglected at the moment. Senega attracts little attention but may be quoted firm at 38@40c for western although we heard that some business was done early in the week at 37@37½c. For southern some holders want 45c.

Shellac.

There has been a considerable inquiry for shellac during the past week, consumers showing some anxiety to provide for future requirements. Sales of 500 cases principally intermediate grades are reported at full prices, the advance reported last week being firmly maintained. From London the cable reports an advance of 2 shillings on orange grades, and Calcutta advices are also firmer. The London stock shows a decrease of 1,900 cases as compared with August 1. Garnet is reported higher abroad, and is decidedly firmer here. The strike of dockmen in London will interfere with transshipments of shellac, and this is expected to add to the strength of the position here.

Spices.

A fairly active jobbing demand for most descriptions is reported and prices are well maintained. Cassia buds continue to advance and we note sales of 100 cases at 12½@12¾c the latter being the closing figure.

Mr. Ashton M. Boney and Dr. J. S. Dunn will hereafter represent Messrs. Lehn & Fink in the South, taking the place of Dr. George Schoeps.

Mr. James Haslett, the popular buyer for Messrs. McKesson & Robbins, has returned to his duties after a long absence.

The many friends of Mr. W. S. Mersereau, of Messrs. W. H. Schieffelin & Co., will be pleased to learn that he has been fully restored to health and is once more to be found at his desk.

Alleged Opium Smuggling.

The Staten Island papers last week contained lengthy reports of the finding of a lot of smuggled opium at Port Richmond, the discovery being made accidently by a local druggist while watching a number of boys pelting each other with balls of a peculiar looking material which they found in a barrel on the dock. According to the story the local police were told of the find, and through them the customs authorities were notified. In the meantime the mysterbarrel and its contents disappeared. The story was sent broadcast over the country by correspondents of out of town papers and created quite a sensation in the drug trade.

The report was purely a fabrication, as the most careful inquiry failed to unearth anything that in the slightest degree substantiated it. The police had heard nothing of it, but what appeared in print, and the Customs authorities failed to find any trace of an attempt at smuggling.

Boston Notes.

[Special correspondence of the OIL, PAINT AND DRUG REPORTER.]

BOSTON, August 31, 1889.

The jobbers report that concessions are being made on linseed oil in anticipation of the coming new crop oil. There is a scarcity of spot oil, and this is held at 58c; no one is willing to buy futures, for all expect 50-cent oil, but futures cannot be bought for 50c; so the movement is from hand to mouth and will in all probability continue to be so until the new crop oil comes in.

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Quotations and Samples furnished on application.

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NEW YORK.

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Collapsible Tubes,

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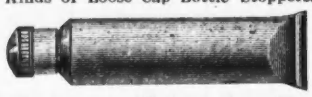

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WASHINGTON, D. C., May 10, 1888

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For paints there is a fair demand. Jobbers report that the business of the month just ending compares favorably with August of last year. The feeling in the trade at the present time is steady. Pure French zincs have advanced ½c per pound.

The situation of the shellac market is very active, and has been since my last. Prices have advanced considerably during the past week, and are now quoted as follows: "D. C.," 29@30c; "V. S. O.," 24@25c; "Octagon B" and other good 2ds, the same as "V. S. O.," "S. S.," 22@23c; "A. C., Garnet," 15½c; "T. N." qualities, 17½@18½c. Stocks are being reduced in London, according to last advices, and shipments from Calcutta are light. A letter to a leading dealer here states that the strikes in London threaten to affect the market quite materially, as it is impossible to ship goods from that port.

While there are some new features in the chemical market, there is no change in prices. Cream of tartar is quiet. Crude saltpetre is steadily held, and nitrate of soda, according to late advices, shows indications of a strong market abroad, but no immediate change is looked for here. The bleach market is quoted at $1 72½@1 75. Stocks on the spot are very light. The market has an upward tendency, for this is the time of year when prices are likely to advance. The steamer Venetian arrived here on Wednesday, bringing light stocks of bleach.

The oil trade is generally quiet, with little doing beyond small jobbing lots. Lard oil is easy, saponified is firm, menhaden oil is fairly steady with the offerings heavy; holders, however, are not pushing oil on the market. The Boston Oil Trade Association makes no changes in quotations to the trade this week.

The market for gambier is strong. The lowest price at this writing is 7¼c on spot, and very little can be obtained at this figure. The dock strikes in London are having a bad influence on the market here, as supplies that were expected from England have not arrived on account of the steamers being tied up over there. The opinion of the trade is that 7½c is likely to be reached within the next 30 days. Gambier has been offered to arrive in October at 6⅞c, but now there is a desire on the part of sellers to withdraw offers. The sumac market is unchanged. Advices from Sicily this week report that, owing to steamers being tied up in London, it is impossible to tell when sumac can be shipped from there Virginia sumac is in good demand on spot, at $48@$50, and estimates of the total stock in Boston place it at not over 15 tons. None can be delivered from Virginia much before the first of October. Cutch is dull. Quotations are: S. M., 5¾c; Star B., in boxes, 6¼c, in bales, 6c; R. S., 6c; S. M. Slab, 6½@6⅝c. All the W. Star cutch has been sold. There have been no arrivals of logwood here this week, and the market is about the same. Fustic is scarce, and the market is strong. Lima wood is offering sparingly as the supplies are light. Camwood is in little demand. Aniline colors are having a liberal movement, and prices are well maintained.

Opium is in good demand for consumption, but not in much demand for speculation. English and German morphine are a trifle higher. American remains about the same.

The tallow market is looking a little better, and the indications point toward a larger demand from abroad. The editorial on "Merchants' Week, in the OIL, PAINT AND DRUG REPORTER last week was read with much satisfaction by the trade, as it voiced the sentiments of morchants generally.

I understand that the nominating committee of the Paint and Oil Club will meet next Tuesday to talk over the nominations for officers f Club to serve for the coming year, although the first regular monthly meeting of the season and also the annual meeting does not take place until the second Saturday in October. President Tyler has emphatically stated that he will not be a candidate for reelection. Messrs. Robert D. Archer and Chas. W. Badger are named to succeed him. Mr. Tyler is spending his vacation in the forests of Maine

ALLAN ERIC.

New Antipyretics and Analgetics.

Merck's *Bulletin* for February, 1889, in discussing acetyl-phenyl-hydrazin (also called "hydracetin" and "pyrodin"—under which latter name it has again been treated in the *Bulletin* for June, 1889), showed the close chemical relation existing between substance and several previously discovered medicaments which had already earned good repute for themselves. These others were antifebrin, antipyrine, antithermin, and phen-acetin (para-acet-phenetidin)—all four being more or less famous as antipyretics or analgetics, or both.

The inference drawn at the close of the February *Bulletin* article here referred to was that—these last mentioned four substances being closely inter-related both in their chemical constitutions and in their therapeutic actions, and the new claimant for medicinal distinction appearing to belong to this same chemical "family group,"—it might fairly be presumed to belong to this same therapeutic class likewise.

This inference has since been shown to have been correct, as demonstrated by the clinical reports quoted in the article on "Pyrodin" acetyl-phenyl-hydrazin) in the June *Bulletin*.

Now, there is again a chance group of three new, or newly applied, compounds, partaking of the same general chemical and therapeutic characteristics that distinguish the above mentioned five substances; and the confidence with which clinical experimenters have at once on their appearance received these new comers is due in no slight measure to their evidently close chemical relation to that older and favorably known group of antipyretics and analgetics.

"Antisepsin" (properly, para-mono-brom-bhenyl-acetamide—or, briefly, and sufficiently exact, "bromated antifebrin") was slightly discussed in the *Bulletin* for June and for August, 1888, under the title of "Brom-phenyl-acet-amide, Mono-."

The name "antisepsin" for this substance, as indicative of one of its principal uses, is a brief substitute proposed by some clinical practitioners in place of the cumbersome but exact chemical designation "para-mono-brom-phenyl-acet-amide."—The name "bromated antifebrin," however, may be safely assumed, by this time, to be quite as suggestive—though it be indirectly so—both of all its various uses and of its chemical nature; for, the chemical constitution and the therapeutic applications of antifebrin (medicinal phenyl-acet-amide) being proverbially familiar to the professions, it needs but a reminder that bromine is introduced by substitution for a hydrogen atom in antifebrin, to give at once a complete characteristic of the compound—both chemical and therapeutic.

Bromated antifebrin (para-mono-brom-phenyl-acet-amide, or "antisepsin") is devoid of odor and taste; it crystallizes in small, pearly prisms, melting—according to exact recent determination—at 164·5° C. [328° F.]. It is insoluble in cold water, difficultly soluble in hot; only slightly in glycerine; easily soluble, however, in alcohol or ether. A one-per-cent. alcoholic solution suffers the addition of twice its volume of water, or of thrice its volume of glycerine, without clouding.

"Exalgin" (properly: methyl-phenyl-acet-amide;—or: "meteylated antifebrin") is another of the chemically and therapeutically inter-related group of eight antipyretics above pointed-out. Its formula indicates that it is a direct derivative of antifebrin, formed by the substitution of a methyl group for hydrogen-atom ih the original phenyl-acet-amide,—as demonstrated by Hepp, the investigator of antifebrin, already in the year 1877. The short and therapeutically significant, but chemically meaningless, name "exalgin" (from Greek *eE*,—"out of," and *algos*—"pain") was given it, nearly two years later, by its French sponsor, Brigonnet, in just recognition of its analgetic properties, which bid fair to outrank even its antifebrile powers.—The name "methylated antifebrin" is suggested by, and is at the same time sufficiently indicative of, its chemical constitution: and also of its principal therapeutic properties;—on the same principle as has been indicated for the choice of the name "bromated antifebrin" for "para-mono-brom-phenyl-acet-amide."

Methylated antifebrin (methyl-phenyl-acetamide; or "exalgin")—according as it has been obtained either by melting or by crystallization—appears either in flat white tablets or in fine white needles. It melts at about 101° C [or 214 F]; is but sparely soluble in cold water, more so in hot, most readily in a mixture of water and alcohol.

Its analgetic power have been highly extolled by the eminent French therapeutists: Dujardin-Beaumetz and Bardet.

The physiologic effects of methylated antifebrin bear great general resemblance to those of antipyrine; but their restrictive force appears to be directed more toward the sensorial than the thermogenic (heat producing) centers. Hence it has come into prominence more as an analgetic than as an antipyretic, so far.

Meth-acetin (properly; para-acet-anisidin [acetyl-methyl-para-amido-phenol];—or:"oxy-metyplated antifebrin")—is yet another member of the above-discussed group.

The convenient name "Meth-acetin" for this compound is evidently formed by contraction from its two exact chemical names, as above given; but in itself it bears no precise assurance of what is meant.—The name"Oxy-methylated antifebrin" will both show the therapeutic relation of this medicament to one of the best known antipyretics, and also indicate its chemical composition. For, just as its parellel, phen-acetin—or: para-acet-phenetidin;or acetyl-ethyl-para-amido-phenol—

$C_6H_4 < \begin{matrix} OC_2H_5 \\ NH.C_2H_3O \end{matrix}$ —(briefly noticed in the Bulletin for April, 1888, and on page 14 of February's number of the present year) was shown to differ from antifebrin by the substitution of an oxy-ethyl group for a hydrogen atom, so the meth-acetin may be considered as antifebrin with oxy-methyl group substituted for a hydrogen aton. Hence, phen-acetin and meth-acetin might be called "oxy-ethylated antifebrin" and "oxy-methylated antifebrin," respectively, to show, in an easily pronounceable form, their chemical relation to the most widely employed member of their group.

The meth-acetin employed by F. Mahnert in his experiments ("Ueber die antipyretische Wirkund des Methacetins"; *Wiener Klinische Wochenschrift*, 1889; No. 13) is described as a crystalline powder, of slightly reddish tinge,

Mexican VANILLA BEANS.

"KIENZLER'S"

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Bourbon VANILLA BEANS.

OLIVE OIL "GARIBALDI" BRAND STRICTLY PURE.

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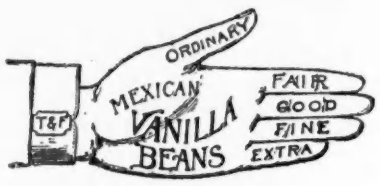

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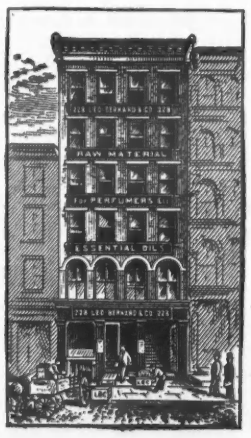

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Oils, Etc.

Vegetable Oils.

Linseed Domestic Raw, in bbls, ₩ gal.	—	@60
Boiled, in bbls	—	@63
Calcutta, Raw, in bbls	—	@60
Western on spot	57	@58
Rapeseed, in bbls	63	@65
Mustard	60	@63
Cottonseed, Crude Prime	40	@—
Crude, off quality	32	@35
Yellow Summer Prime,	48	@52
Yellow Summer, off qual.	41	@46
Yellow Summer, cooking		@—
White Summer	42	@45
Yellow Winter	54	@58
White Winter	55	@58
Soap stock		1½@ 1⅝
Olive, Sic ly	68	@70
Spanish	68	@70
Soap Stock		5½@ 5¾
Palm, prime ₩ ℔		5¼@ 5½
Off quality	4	@ 5
Cocoanut, Domestic	5	@ 5½
Ceylon		5½@ 5¾
Cochin		7⅛@ 7¼
Cuban		5⅜@ 5¾
Castor, No. 2		13¼@13⅜
No. 3		11¼@11½
Poppy	55	@57
Maize	54	@55
Rosin, first run ₩ gal.	—	@ 9
Second run	—	@11
Third run	—	@14
Fourth run	—	@17

Animal and Fish Oils.

Whale, natural winter ₩ gal.	45	@46
Bleached winter	47	@48
extra bleached winter	49	@50
Bleached spring	46	@47
Sperm, natural winter	75	@76
Bleached winter	80	@82
Natural spring	69	@71
Bleached spring	74	@76
Sea elephant, bleached winter	55	@56
Unbleached winter	50	@51
Lard, prime city	53	@54
prime, western	53	@54
Extra No. 1	46	@50
No. 1	42	@44
No. 2	37	@40
Menhaden, prime crude	23	@25
Prime southern	21	@22
Brown strained	26	@27
Light strained	28	@29
Extra bleached white	37	@38
Bleached winter	32	@33
Bank	26	@27
Straits	27	@28
Herring	—	@—
Oleo	—	@—
Cod, Domestic, prime	30	@32
Black Fish, Crude	—	@—
Natural	—	@—
Bleached Winter	—	@—
Degras, English	2¾	@ 2⅞
French	—	@—
Tallow, Prime	48	@50
Neatsfoot, Prime	57	@60
No. 1	45	@55
Elaine Red	36	@39
Saponified Red ₩ ℔	4¼	@ 5

Mineral Oils.

Paraffine, High viscosity ₩	18	@21
23½@24 gravity	11½	@12
25 gravity	10¼	@11
28 gravity	8½	@ 9
Red Paraffine, 21 @22 gravity	14	@14½
22½@23 gravity	12	@13
Neutral filtered, 32 grav., bloomless	18	@20
white, 35 gravity	33	@35
32@34 gravity, bloomless	10	@18
32 gravity, wool grade	13	@15
West Virginia, natural 29 gravity	23	@25
Franklin, natural, 32 gravity	—	@—
Smith's Ferry, 33@34 gravity	7	@ 8
Black reduced, 29 gravity, 25@30 c. t.	8	@ 9
29 gravity, 15 cold test	8½	@ 9½
29 gravity, zero	—	@—
Summer	6	@ 7
Cylinder, light filtered	15	@20
dark filtered	14	@21
extra cold test	—	@—
dark steam refined	10	@18

Oil Cake.

Calcutta cake, city ₩ ton	—@	—
City domestic	—@	—
Western, in bags	25 50@25	75
Cottonseed cake at Memphis	—@	—
do do New Orleans	22 00@	—

Oil Meal.

State domestic meal ₩ ton	28 00@29	00
Cottonseed meal at Memphis	—@	—
do do New Orleans	22 50@	—

Wax Candles, Lard Tallow, Etc.

Paraffine wax, crude, 124@126 m p ₩ ℔	4¼@	4½
128@130 m. p	4½@	5
refined 135 m. p	8¼@	8¾
Candles, Paraffine, 4s and 6s	8	@11
12s	8	@12
Adamantine, 6s, 16 oz	9	@10
14 oz	8	@ 9
12 oz	7	@ 8
12s, 16 oz	10	@11
14 oz	9	@ 0
12 oz	8	@ 9
Patent sperm, 4s and 6s	35	@36
Sperm, 4s and 6s	25	@26
Stearic acid	10	@11
Spermaceti	22	@23
Lard	6 00	@7 40
Stearine	6	@ 7½
Tallow	—	@4¾

Naval Stores.

Sp. turpentine 44	@44½	I. 1 75	@—
St'd rosin	1 02½@—	K. 1 80	@—
G d st'd	1 05 @1 07½	M. 1 95	@2 00
E	1 10 @1 20	N. 2 15	@—
F	1 30 @—	W G. 2 45	@—
G	1 35 @—	W W . 2 55	@2 60
H	1 42½@—		

Paints, Varnishes, Etc

White Lead, Zinc, Etc.

American Dry White Lead ₩ ℔	6¾@	7
Pure White Lead, in oil	7	@7¼
English White Lead, in oil	8¼@	8¾
Zinc White, Paris, G S, 50 bbls	7½ less	4 ⅌ ct
G S, 25 bbls	7½	2 ⅌ ct
G S, 10 bbls	7½	1 ⅌ ct
R S, 50 bbls	7½	4 ⅌ ct
R S, 25 bbls	7½	2 ⅌ ct
R S, 10 bbls	7½	1 ⅌ ct
Antwerp R S, 50 bbls	7	4 ⅌ ct
R S, 25 bbls	7	2 ⅌ ct
R S, 10 bbls	7	1 ⅌ ct
G S, 50 bbls	7¼	4 ⅌ ct
G S, 25 bbls	7¼	2 ⅌ ct
G S, 10 bbls	7¼	1 ⅌ ct
G S in poppy oil	10¼@	10½
R S in poppy oil	8½@	9¼
French in Varnish	16	@20
American Extra Dry	4¼@	4½
Off color	4	@ 4½
In oil	6¼@	6¾
In varnish	14	@18¾
L. Z. O. German zinc	5½@	5
China white	10¾@	12
Flake white	10¾@	12
Cremnitz white	15	@20

Dry Colors.

REDS.

Carmine No. 40 ₩ ℔	3 10@	4 20
Crocus martus, imported	1¼@	2¼
Standard American	1¼@	2¼
Colcothar	3½@	6
Indian red, American	3½@	6½
Standard American	2 @	3
English	5½@	7
Tuscan red, English	9½@	11
Turkey red, English	9½@	14
Litharge, English flake	9 @	9½
American powdered	6½@	6¾
Red lead, English	8½@	9
American	6¾@	7
Orange mineral, English	8¾@	9½
French	9½@	9¾
German	8¾@	9½
American	8 @	8½
Rose pink, English	9 @	9½
American	8 @	—
Vermilion, imported English	— @	85
Am. quicksilver, bulk	65 @	70
Am. quicksilver, bags	66 @	—
Chinese	88 @	90
Trieste	85 @	87
American	11½@	12
Artificial	8 @	35
Venetian red,	1 40 @1	50
English prime	1 40 @1	50
second quality	1 05 @1	25
American	1 00 @1	35

YELLOWS.

Chrome yellow	10 @	25
Ocher, Rochelle	1 35 @1	50
Washed Dutch	5 @	—
Washed French	15½@	21½
Washed Nat Oxford, Lump	6½@	6¾
Washed Nat Oxford, Powd'r	7 @	7½
Golden	3¾@	4
Domestic	1½@	1¾
Domestic, for O C & W P	9@	1

GREENS.

Chrome, Chemically pure	22	@28
Extra	12	@13
Super	9	@11¾
Common	—	@ 8
Paris, Pure	30	@—
In pulp	11	@12
French Verdigris	40	@42

BLUES.

Chinese Blue	45	@50
Prussian Blue	20	@35
Soluble Blue	40	@55
Ultramarine Blue	7	@25
Celestial Blue	5½@	8
Blue verditer	25	@30
refiners'	60	@70

BROWNS.

Sienna, Italian, burnt & powdered	5 @	6½
burnt lumps	1¾@	3½
raw powdered	5 @	6½
raw lumps	1¾@	3½
American, burnt & powdered	1½@	1¾
raw	1½@	1¾
Umber, Turkey, burnt and powdered	3½@	4
burnt lumps	2¾@	3
raw and powdered	3½@	4
raw lumps	2½@	2¾
American, burnt	1¼@	1½
raw	1¼@	1½
Vandyke brown, English	6 @	8
American	3 @	3¾
Spanish brown	½@	1

Miscellaneous.

Barytes, prime white ₩ ton	17 50	@20 00
foreign floated	19 00	@21 00
domestic floated	26 00	@32 00
off color	11 50	@14 00
crude No. 1	8 50	@ —
No. 2	7 75	@ —
No. 3	7 50	@ —
Chalk	2 00	@ —
kiln dried ₩ 100 ℔s.	45	@ —
air dried	33	@ 35
China clay ₩ ton.	13 50	@18 00
Cobalt oxide	2 60	@ 2 90
Feldspar ₩ ton.	15 00	@ —
Silex	14 00	@25 00
Whiting, commercial ₩ 100 ℔s.	40	@ 50
gilders'	57½	@ 70
Paris white, English cliffstone	1 05	@ 1 15
American	65	@ 80
French talc	1¾	@ 1½
terra alba	70	@ 75
American terra alba No. 1	65	@ 70
No. 2	36	@ 40
Blanc fix ₩ ℔.	2½	@ 3
Dentists' plaster ₩ bbl.	1 35	@ 1 50
Calcined plaster ₩ bbl.	1 25	@ 1 50
Marble dust ₩ bbl.	90	@ 1 00
Pumice stone, original cks. ₩ ℔.	1¾	@ 2
selected lumps in bbls.	3½	@—
powdered pure in bbls.	2½	@ 2½
Rotten stone original cks.	4½	@ 5½
selected lumps	6	@ 10
powdered, in bbls.	3½	@ 3½
Rubbing stone		@ 7
Bronze powder	—	@—
Brocades	45	@ 1 00
Smalt, German blue	15	@ —
super black	—	@—
Putty bulk	1¾	@ 2½
bladders	2	@ 2½
tins	—	@ 2½

Glues.

Extra white ₩ ℔.	17	@20
Medium white	13	@15
Cabinet	12	@14
Low grade	8	@10
Foot stock, white	9¼	@13½
brown	4	@ 8
Irish	12¼	@14½
French	9½	@22½
English	10¼	@15

Metallic Paints.

Brown ₩ ton.	$18 00	@25 00
Red	27 50	@32 50
Yellow	27 50	@32 50

Colors in Oil.

Black coach, Japan ₩ ℔.	18½	@20
in oil	12	@13
Drop black	8¼	@14½
Ivory black	8½	@14½
Lamp black	12	@20
Chinese blue	35	@40
Prussian blue	20	@45
Ultramarine blue	12	@18
Burnt sienna	7	@14
Raw sienna	7	@14
Burnt umber	7	@11
Raw umber	7	@11
Vandyke brown	7	@12½
Chrome green	8	@14
Paris green	16	@18½
English drop black	12½	@14
American drop black	7½	@10
Frankfort drop black	25	@30
Lampblack, prime	17	@22
medium	10½	@13
2d quality	13	@19
low grade	6½	@10
Naphtha, black	60	@—
Fine calcined velvet black	16	@25
Medium calcined velvet black	12	@15

Varnish Gums.

Copal, Sierra Leone, cleaned	37½	@40
Zanzibar, bold white	85	@95
medium white	75	@80
bean and pea	45	@50
Manila, pale	17	@20
bright amber	13	@15
standard	9	@10¾
Damar, Batavia	19	@21
Kauri, standard	13½	@16
No. 2	12	@14
hard scraped	22	@24
light hard scraped	28	@30
picture quality	65	@70
pale and fine selected	42	@65
Sandrac	22	@30
Asphaltum, Cuban, prime	4½	@ 5½
sandy	4	@ 5
Egyptian	8	@ 9

Glass.

WINDOW GLASS,

AMERICAN AND FRENCH SINGLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
26x28 to 24x36	17 75	16 25	14 75	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	23 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
24x36 to 26x28	26 00	25 00	23 00	....
36x60 to 40x60	26 50	24 50	23 00	....

AMERICAN AND FRENCH DOUBLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x to 10x15	$13 00	12 50	$12 00	$11 50
11x14 to 16x24	16 00	15 00	14 50	....
18x22 to 20x30	20 50	19 50	18 50	....
15x36 to 24x30	22 00	20 75	19 50	....
26x28 to 24x36	25 00	23 00	21 50	....
26x36 to 26x44	26 00	25 00	23 00	....
26x46 to 30x50	28 00	26 50	24 50	....
30x52 to 30x54	30 00	28 00	26 00	....
30x56 to 34x56	31 00	30 00	28 00	....
34x58 to 34x60	32 50	31 00	29 00	....
36x60 to 40x60	36 00	33 50	32 00	....

Discounts: Amer., 80@80&10%; French, 75&10%.

Drugs.

Opium.

Opium, n bond ₩ ℔.	2 20	@2 50
duty paid (cases)	3 20	@3 50
as wanted	3 30	@3 50
powdered	4 25	@4 30
Morphine	2 40	@2 70
foreign	2 25	@2 40

Quinine.

Quinine American ₩ oz.	32	@ 39
English	—	@ —
French	—	@ —
German	28	@ 35
Cinchonidia, American	4	@ 5
foreign	2	@ 5
Quinidia, German	24	@ 29

Miscellaneous.

Acid benzoic, German ₩ ℔.	52	@ 55
English ₩ oz.	11	@ 12
boracic purified ₩ ℔.	20	@
refined	14½	@ 14¾
flaky	14	@
carbolic, pure crystals bot	32	@ 35
drums	27	@ 29
citric, domestic	42	@ 42½
foreign	42	@ 42½
salicylic, bulk & boxes	1 20	@ 1 25
Alcohol, 94 p ct, free per gal.	1 98	@ 2 06
refi'd wood, 97 p ct	—	@ 1 15
95 p ct	—	@ 1 10
92 p ct	—	@ 1 05
Inodorous	1 50	@ 1 60
Cologne spirits, 188 p t	2 18	@ 2 28
Ambergris gray	30 00	@35 00
black	9 00	@12 00
Ammonia carb, foreign	7¾	@ 8
domestic	8	@ 8½
Bay rum imp, bulk	1 95	@ 2 00
Barbadoes tar	32	@ 35
Borax, refined city, bbls ₩ ℔.	9½	@ 9⅝
Cal., bbls	8½	@ 9⅜
concentrated	7¾	@ 8⅝
powdered	8½	@ 9⅜
Bromine	37	@ 38
Burgundy pitch	2¾	@ 3
Cantharides, Russian	95	@ 1 05
Chinese	25	@ 27
Calomel, domestic	73	@ 75
English	1 05	@ 1 10
Castile soap, white	10¾	@ 12
green, pure	6½	@ 9
mottled ordinary	4½	@ 4¾
pure	5¾	@ 6
Chian turpentine ₩ oz.	45	@ —
Chloroform	27	@ 30
Colocynth apples, Trieste ₩ ℔.	34	@ 42
pressed	—	@ —
Spanish	24	@ 28
Cacae butter	35½	@ 40
Chloral hydrate, crystals	1 55	@ —
plates	1 25	@ —
Corrosive sublimate	70	@ 72
Cuttlefish bone, Trieste	21	@ 22
Dragon's blood mass	23	@ 28
reed	40	@ 45
Ergot, Spanish	40	@ 50
German	30	@ 32
Gelatine English	60	@ 80
French	30	@
American	85	@
Glucose	2¾	@ 3¼
Grape sugar	2¼	@ 3
Glycerine, German, refined, dms.	20	@ —
Amer'n, ref. bbls & cs.	21	@ 23
No. 1	19	@ 21
Glycerine, crude	11	@ 12
Guarana, whole	1 20	@ 1 25
Powdered	1 30	@ 1 35
Iceland moss	5	@ 5½
Indian hemp (Canabis In)	7	@ 10
Insect powder	30	@ 35
Irish moss	6½	@ 12
Isinglass, Russian	3 50	@ 3 75
American ordinary	70	@ 75
prime	90	@ 1 50
Iodine, re-sublimed	3 30	@ 3 35
Licorice paste, domestic	6	@ 15
foreign	24	@ 29
Lupulin, American ₩ ℔	—	@ 60
German	30	@
Lycopodium, prime	33	@
Manna, large flake	75	@ 78
Small flake	34	@ 35
Sorts	26	@ 30
Menthol	1 45	@ 1 50
Musk, true grain ₩ oz	40 00	@42 00
Tonquin pods	25 00	@26 00
Canton grains	20	@ 1 00
Nitrate barium ₩ ℔	7	@ 8
Strontia ₩ ℔	8½	@ 9
Nux vomica, pockets ₩ ℔	2	@ 4
Oil, Almond, sweet	20	@
Myrbane, American	16	@ 18
English	16	@ 18
German	—	@
Sesame ₩ bbl	70	@ 75
Castor, city, bbls & cases	14½	@ 14⅝
Cod liver Norwegian ₩ bbl	20 50	@26 00
Newf'land ₩ gal.	60	@ 65
Phosphorus ₩ ℔	70	@ 75
Precip, red	88	@ 90
White	93	@ 95
Precipitated chalk, Eng. bk	4½	@ 5
bbls	7	@ —
Potassium, bromide, bulk	33	@ 34
glass	42	@ 43
Iodide, bulk	2 65	@ 2 70
glass	2 73	@ 2 78
Quicksilver	69	@ 72
Sago, pearl	3¾	@ 3⅞
Flour	3½	@ 4
Sugar of milk cob	16	@ 17
Powdered	15½	@ 16
Sulphur, roll	—	@ 2¾
Flour	—	@ 3
Salicine	1 75	@ 1 90
Tamarinds ₩ keg	2 25	@ 2 75
Venice turpentine ₩ ℔	18	@ 20
Wax, brown southern	23½	@ 25
State	25	@ 26
White, pure	40	@ 45
Japan	10	@ 12
Carnauba	13	@ 15
Ceresin	10½	@ 11

Balsams.

Copaiba, Angostura ₩ ℔	60	@ 70
Para	55	@ 60
Central American	43	@ 45
Fir, Canada ₩ gal.	2 25	@ —
Oregon	90	@1 10
Peru ₩ ℔	90	@1 00
Tolu	28	@ 30

Barks.

Angostura ₩ ℔	12	@ 14
Bayberry	5	@ 7
Buckthorn	5	@ 7
Cascara Sagrada	6½	@ 12
Cascarilla	5	@ 7
Canella	7	@ 8
Cinchona, red	25	@ 28
yellow	12	@ 28
Coto	60	@ 95
Elm, common	7	@ 10
selected	12	@ 14
Loxa	—	@ —
Oak, white	3½	@
red	3½	@
Orange peel, West Indian	5½	@
Malaga prime	5	@ 10
Curacoa	7	@ 8
Prickly ash	10	@
Pomegranate (of root	10	@ 25
Quebracho	12	@
Sassafras	4	@ 6
Simaruba	13	@ 16
Soap, whole	4½	@ 4¾
crushed	5½	@ 6

Beans.

Vanilla, Mexican ₩ ℔	4 50	@10 00
Bourbon	4 00	@ 9 00
Tonka, Angostura	1 25	@ 1 40
Surinams	—	@ 1 15
Para	80	@ 1 10
Calabar	20	@ 25
St. Ignatius	15	@ —

Berries.

Cubeb ₩ ℔	1 50	@ 1 75
Juniper	2½	@ 3
Fish (Cocculus Ind)	4	@ 4½
Laurel	5	@ —
Prickly ash	16	@ 18

Essential Oils.

Anise ₩ ℔.	1 60	@ 1 65
Almond (bitter)	2 50	@ 6 75
Bay, ₩ bottle of 22 ozs	6 00	@
Bay oil, ₩ ℔	3 62½	@ 4 35
Bergamot	2 00	@ 2 60
Black pepper	65	@ 5 50
Cajeput	65	@ 70
Camphor	6½	@ 11
Caraway, seed	1 05	@ 1 40
chaff	40	@ 52
Cassia	80	@ 1 17½
Citronella	31	@ 33
Clove	1 25	@ 1 35
Copaiba	90	@ 1 00
Croton	95	@ 1 00
Cubebs	14 50	@15 00
Cumin, American	3 00	@ 4 50
Fennel	85	@ —
seed	1 50	@ —
Geranium, Turkish	3 00	@ 3 50
rose, French	8 00	@ 9 50
Gingergrass	2 25	@
Juniper, once rect	—	@
twice rect	1 75	@
wood	27	@
Lavender, garden	70	@ 85
flowers	2 25	@ 2 75
Lemon	1 00	@ 1 50
Lemongrass	70	@ —
Neroli, bigarade	40 00	@55 00
Portugal	27 50	@
Petale	50 00	@60 00
Nutmeg	2 10	@ 2 35
Orange, sweet	1 30	@ 1 75
bitter	2 50	@ 3 00
Origanum	18	@ 20
Peppermint, tin cans	1 90	@ 2 25
cases	2 60	@ 2 65
Pennyroyal	80	@ 90
Rose, ordinary ₩ oz	4 25	@ 4 75
special brands	4 50	@ 5 25
Rosemary, Trieste ₩ ℔	55	@ —
French	—	@ 25
Flowers	70	@
Sandalwood	2 25	@10 50
Sassafras	44	@ 47
Spearmint	2 00	@ 2 25
Tanzy	1 75	@ 2 00
Thyme, red	21	@ 82½
white	30	@ 1 10
Wintergreen	1 85	@ 1 90
Wormseed	1 25	@ —
Wormwood	4 00	@ 4 50

Flowers.

Arnica ₩ ℔	5	@ 7½
Chamomile, German	12	@ 22
Roman	18	@ 30
Insect	22	@ 35
Lavender	2½	@
Rosemary	15	@ 20
Saffron, American	22	@ 25
Alicante	6 50	@ 8 50
Valencia	14 50	@16 50

Gums.

Aloes, Cape ₩ ℔	5	@ 5½
Barbadoes	15	@ 20
Curacoa	½	@
Socotrine		@ 40
Arabic, 1st picked	½	@ 97
2d picked		@ 72½

	3d picked	64½@	67
	4th picked	54½@	57
	Sorts	45 @	60
	Siftings	25 @	40
Senegal, picked		43 @	45
	sorts	26 @	28
Asafœtida		8 @	8½
Benzoin		25 @	40
Camphor, refined, in bbls		31 @	—
	in cases	— @	32
Chicle		36 @	38
Euphorbium		15 @	17
Gambogе pipe and block		55 @	60
Gedda, siftings		18 @	20
	sorts	— @	—
Guaiac		28 @	35
Kino		10 @	11
Mastic		72 @	75
Myrrh		20 @	40
Olibanum, tears		15 @	18
	sorts	6½@	7½
Sandrac		22 @	23
Scammony, Alleppo		2 25 @	3 00
	Virgin	6 00 @	6 50
Tragacanth	Alleppo, 1st flake	46 @	49
	2d flake	39 @	42
	3d flake	34 @	36
	Turkey, 1st flake	70 @	75
	2d flake	52½@	55
	3d flake	40 @	45

Herbs and Leaves.

Aconite	℔ lb	9 @	11
Althea		8 @	10
Belladonna		12 @	15
Buchu, short		5 @	7½
	long	15 @	17
Coca		20 @	30
Damiana		17 @	19
Digitalis		6 @	9
Eucalyptus		4 @	5½
Grindelia robusta		12 @	14
Henbane (hyosciamus)		9 @	12
Horehound		6 @	8
Jaborandi		15 @	20
Laurel		3½@	4
Lobelia		4 @	7
Matico		18 @	20
Marjoram, German		14 @	20
	French	12 @	—
Prince's pine		— @	8
Rose, red		90 @1	15
	pale	30 @	40
Rosemary		3 @	4
Sage, Italian		2 @	5
Senna, Alex. nat		19 @	20
	siftings	16 @	17
	garbled and sifted	24 @	25
	Tinnivelly	7 @	20
Thyme		4½@	10
Uva Ursi		4 @	5
Yerba Santa		10 @	12

Roots.

Aconite	℔ lb	10½@	11
Alkanet		7 @	8
Althea, whole		14 @	14½
	cut	18 @	22
Angelica, German		10 @	12
	American	9 @	10
Arrowroot, Bermuda		31 @	35
	St. Vincent, bbls &cns	6½@	7
	Jamaica	10 @	11
Arnica		7½@	8
Belladonna		8 @	12
Blood		5½@	6
Burdock		7½@	8
Calamus, bleached		18 @	20
	unble'd, split & peeled	7 @	10
Canada snake, select		15 @	17
Colchicum		— @	10
Colombo		10 @	12
Culvers		11 @	12
Dandelion, German		10½@	11
	American cut	11 @	12
Elecampane		5 @	5½
Galangal		2 @	2½
Gentian		3½@	4½
Ginseng		2 40 @2	60
Ginger, Jamaica, unbleached		16 @	16½
	American, bleached	17½@	18
	London, bleached	17½@	18
Golden seal		40 @	41
Hellebore, white, powdered		8½@	9
	whole	5½@	7
Ipecac, Rio		1 80 @1	90
Jalap		13 @	14
Kava Kava		18 @	20
Lady slipper		12 @	15
Lovage, American		40 @	50
	German	19 @	20
Licorice, ordinary		5 @	7
	selected, in bdls	12½@	20
Mandrake		6 @	8
Orris, Florentine		11 @	13
	finger	48 @	75
	Verona	5½@	6
Pareira brava		18 @	20
Pellitory		16 @	18
Pink		25 @	30
Rhatany		8 @	10
Rhubarb, whole		35 @	80
	cut	45 @1	75
Sarsaparilla, Honduras		26 @	35
	Mexican	5¾@	6¼
	American	6 @	—
Senega, Southern		40 @	45
	Western	39 @	40
Serpentaria, Texas		30 @	35
Stillingia		8 @	10
Squills, ordinary		— @	5
	white, prime	5 @	6
Valerian, German		10 @	11
	Belgian	6 @	7
	English	— @	17
	Vermont	10 @	11
Yellow dock		7 @	9

Seeds.

Anise, Italian	℔ lb	4½ @	10½
	Spanish	— @	12
	star	25 @	28
Canary, Sicily		2¾@	3
	Smyrna	2¼@	2½
	Spanish	2¾@	3
Caraway, Dutch		4½@	5
	German	— @	—
Cardamom, Alleppy		60 @	90
	Malabar	55 @	90
	Mangalore	70 @1	50
Celery		10½@	11
Colchicum		65 @	70
Coriander, English		3½@	4
	French	4½@	5
	German	4 @	4⅛
Cummin		9 @	9½
Fennel, German		8 @	10
Fœnugreek		2½@	2¾
Guinea grains		8 @	8¼
Hemp, Russian		2¾@	3
	Smyrna	— @	—
Lobelia		25 @	30
Millet, domestic	℔ bush.	1 10 @	—
	foreign ℔ lb.	2½@	2¾
Mustard, California yellow		2¾@	3
	brown	3½@	4
	Dutch	— @	—
	English	4½@	5
	Trieste brown	5½@	7
Poppy, white		12 @	14
Quince, German		28 @	35
	Russian	20 @	22
Rape, domestic		3½@	4
	English	— @	—
	German	3½@	4

Shellac.

D. C.	℔ lb.	29 @	30
Octagon B		24 @	25
V. S. O		24 @	25
Diamond I		23 @	24
S. S		21 @	22
Garnet, A C		14½@	15½
T. N. quality		18 @	19
Natives		18 @	19
Button		25 @	28
Bleached		22 @	23

Spices.

Cassia, Batavia	℔ lb.	7 @	7¼
	China	4¾@	5
	Saigon, rolls	24 @	28
	broken	20 @	21
	chips	6 @	8
	buds	— @	12¾
Cloves, prime Zanzibar		15½@	16
	Amboyna	24 @	25
	stems	4½@	5
Ginger, African		4¾@	4½
	Calcutta	3¾@	3½
	Cochin	4½@	16
Mace, Batavia		68 @	70
	Banda	— @	75
	Penang	75 @	80
Nutmegs, 110's		63 @	65
Pepper, Singapore		15 @	15¼
	West Coast	13½@	14½
	Acheen, prime	13 @	14
	Penang, white	19 @	20
	Singapore, white	23½@	24
	red, Zanzibar	8 @	8½
	Bombay	6½@	7
Pimento, prime		6½@	7

Chemicals.

Heavy Chemicals.

Alkali, 56 ℔ cent		1 20 @1	25
	refined, high test	1 12½@1	25
Bleach, over 35 ℔ cent		1 75 @1	85
Saltcake		60 @	62½
Soda ash, carb, 48 per cent		1 25 @1	35
	high test	1 12½@1	15
	Caustic, 48 ℔ cent	1 25 @1	37½
	high test	1 12½@1	15
	Newcastle, 48 per cent	1 25 @1	37½
	high test	1 15 @1	20
Soda bicarb, English		2 10 @2	35
	American	2 00 @2	50
	carbonate	1 75 @1	80
	caustic, 60 ℔ cent	2 37½@3	00
	70 ℔ cent	2 22½@2	30
	74 ℔ cent	2 20 @2	30
	76 ℔ cent	2 20 @2	30
	sal, English	95 @1	00
	American	90 @1	10

Acids.

Acid, acetic		2 @	2¼
	chemically pure	16 @	17
	pure	5½@	8½
	oxalic	9½@	10½
	sulphuric, 60 deg	80 @	1¼
	66 deg	1 @1	70
	muriatic, 16 deg	95 @	1¼
	18 deg	1 @1	50
	20 deg	1¼@1	75
	22 deg	1½@2	
	nitric, 36 deg	4 @	4¼
	38 deg	4½@	4¾
	40 deg	5 @	5¼
	42 deg	6 @	6¼
	tartaric, crystals	33 @	34
	powdered	34 @	35

Ammonias, Potashes and Fertilizing Chemicals.

Ashes, pot, 1st sorts	℔ lb.	4 @	4¼
	pearl	5 @	5¼
Potash, chlorate, English		13 @	14
	powdered	13 @	14
	carb	4 70 @	5½
	caustic	7½@	8
	cyanide, fused	39 @	40
	obl m'ure salt 48@50%	— @1	20
	sulphate of, basis 90%	2 35 @2	37½
Kainit, 23% S. of P. ℔ ton		9 75 @11	00
Sylvinit, 27@35% S. F. P., ℔ unit		41 @	42½
Aqua ammonia (in cbys) 10% ℔ lb.		3½@	3¾
	18%	— @	4¾
	20%	— @	6
	22%	6 @	7
	26%	10 @	11
Ammonia, sal, rough		6¼@	7¼
	white	7¾@	8
	lump	8½@	9
	sulphate	3 05 @	3 10
Potash muriate, ℔ 100 lb		1 80 @	1 87½
	steamer	— @	—
AMMONIATES, ETC.:			
Azotine, ℔ unit		2 30 @	2 35
Blood, dried, red, ℔ unit, west		2 30 @	2 32½
	low grade, ℔ unit	2 25 @	2 30
Concentrated tankage, ℔ unit		2 27½@	2 30
Bones, rough, ℔ ton		20 00 @23	00
	ground, ℔ ton	25 00 @28	00
Bone black, refuse, ℔ ton		19 50 @21	00
Kieserite		7 00 @	7 50
Fish guano, dried		23 50 @24	00
	acidulated	12 00 @	—
	wet	9 00 @10	50
Phosphate rock, f. o. b. Char'n		5 75 @	6 75
	undried	6 00 @	—
	dried	7 00 @	—
	ground	11 00 @11	50
Acid phosphate, 14% per unit		80 @	82½

Miscellaneous.

Acetate of lime, gray		1¾@	1⅞
	brown	90 @1	00
Alum, lump		1¾@	1⅞
	ground	1¾@	2
	Cake	1¼@	1¼
Argols, crude Oporto		— @	—
	plate	23 @	24
	half refined	24 @	—
Arsenic, white		3½@	3¾
	red	5¾@	6¾
Brimstone crude, best 2ds		19 75 @20	50
	3ds	18 87½@19	50
Copperas		60 @	70
	powdered	1¼@	1¼
Cream tartar, crystals, 99 p. c.		22½@	—
	powdered, 99 p. c.	24 @	—
Glauber salts		75 @	80
Epsom salts		1 15 @1	20
Nitrate of lead		9 @	10
	soda	1 82½@1	90
Rochelle salts		24 @	25
Sugar lead, brown		7½@	8
	white	12 @	13½
Saltpeter, crude		5½@	5¾
	refined	6 @	8
Vitriol, blue ordinary		5¼@	5⅝
	extra	— @	

Dyestuffs.

Acid picric best crystals	℔ lb.	50 @	55
Albumen prime egg		70 @	75
	imported blood	19 @	22½
	domestic blood	17 @	19
	No. 1½ blood	15 @	—
Alizarine		19 @	21
Annatto		10 @	25
	seed	4 @	6
Archil weed		7 @	15
Aurine		58 @	—
Barbary root, cut		4 @	—
Bichromate of potash, Scotch		10½@	11
	American	10½@	11
Bichromate of soda		8½@	11
Carmine of indigo		40 @	—
Cochineal, Teneriffe silver		30 @	33
	black	30 @	32
	gray black	33 @	35
	Mexican	— @	—
	ammoniac	— @	37
Cudbear, French		12 @	—
	concentrated	25 @	—
	English	12 @	30
Cutch, slab		7¼@	7¾
	bag	5½@	5½
Dextrine		5½@	5¾
Divi divi	℔ ton.	35 00 @50	00
Fullers earth, lump	℔ ℔	90 @	95
	powdered	1¾@	2
Flavine		27 @	28
Fustic stick	℔ ton	30 00 @38	00
Gambier	℔ ℔	7¼@	—
Garancine		8½@	9
Indigo, Bengal, low grade		80 @	85
	medium	1 10 @	1 20
	high grade	1 25 @	1 40
	Caracas	— @	—
	Kurpahs	75 @	1 05
	Gautemalas	60 @	75
	Manila	70 @	75
	Madras	65 @	85
Indigotine		3 00 @	4 00
Lac dye		9 @	15
Logwood stick	℔ ton	22 00 @36	00
Madder, Dutch	℔ ℔	7½@	8½
	French	5 @	7
Myrobalans		2 @	2⅝
Muriate of tin		8 @	13
Nitrate of iron, commercial		1¾@	2
	true	4½@	5
Nutgalls, blue Alleppo		14 @	15½
	Chiuese	16 @	16¼
Oxymuriate of antimony		4 @	6
Persian berries		15 @	17
Prussiate of potash, Am. yellow		17½@	18
	red	42 @	45
	Scotch yel.	19 @	20
	red	42 @	45
	German yel.	19 @	—
	red	42 @	45
Prussiate of soda		17½@	18
Phosphate of soda		7 @	8
Safflower		— @	—
Sago flour		3½@	3¼
Salts of tartar		6½@	7
Soluble oil		— @	8
Sumac, Sicily prime	℔ ton.	57 50 @65	00
	Virginia	47 50 @50	00
Starch, corn	℔ ℔	2¾@	2⅝
	potato	4½@	4⅝
	wheat	5⅝@	6
Stannate of soda, 55% soluble		— @	15
Stannate of soda, 40% soluble		— @	12
25% soluble		— @	9
20% soluble		— @	8
Tin crystals		15 @	16
Turmeric root, Alleppy		3 @	3½
	Bengal	— @	—
	Corringa	3 @	3¼
	powdered	5 @	6
Ultramarine, imported		20 @	30
	American	5 @	16
Vanadiate, ammonium		90 @1	00
Woad, English		9 @	10
COAL TAR COLORS:			
Alizarine		19 @	21
Aniline oil		18 @	24
	salt, crystals	16 @	18
	cake	20 @	21
Bismarck brown		50 @	75
Eosine		2 40 @	3 00
Fast red		50 @	65
Fast yellow—acid		75 @1	50
Fuchsine crystals		1 25 @1	75
Hoffman's violet—3B		1 75 @2	50
Methylene blues		4 50 @6	75
Methyl violets—2R		1 50 @2	00
2B		1 50 @2	00
B		1 50 @2	00
Nicholson (alkali) blue—3B		2 25 @3	00
5B		3 75 @4	00
Red shade		2 00 @2	25
Nigrosine		1 00 @2	00
Orange A—II		40 @	65
Safranine		1 75 @2	25
Scarlet R		45 @	55
RR		50 @	65
RRR		70 @	75
Soluble blue—green shade		3 00 @	3 50

These prices are for colors of standard purity in original packages. Reduced colors can be obtained at irregular and very much reduced figures.

CHIPPED DYEWOODS, ETC.:			
Barwood	℔ lb	1¾@	2¼
Camwood		4½@	8
Fustic, com		1¾@	1¾
Cuban		1½@	1¾
Green ebony		3½@	4
Hypernic		3½@	4¼
Logwood, Campeachy		2 @	2½
Laguna		2½@	2¼
Nicwood		2 @	3
Peachwood		3½@	3¾
Quercitron		1½@	—
Redwood		2 @	3
Red sanders		— @	3
EXTRACTS:			
Archil	℔ lb	18 @	20
	concentrated	21 @	25
Black oak		23½ @	28¼
Barberry, French		26 @	30
Chestnut		3½@	4¼
Chestnut oak		3½@	—
Refi'd sedimentless hemlock		4½@	6
Prime hemlock		2½@	3
Fustic, solid		10½@	—
	liquid, 51 deg	7½@	9
Indigo extract		7½@	14
Logwood, solid		@	9½
	liquid, 51 deg	6½@	6¾
	42 deg	5½@	6
Persian berries, French		24 @	26
Sumac Extract		3½@	6¾

COMPARATIVE PRICES.

	1888.	1887.	1886.
CHEMICALS.			
Bleaching powder	1 85	1 95	1 60
Caustic soda, 70%	2 15	2 35	2 50
Caustic soda, 60%	2 30	2 52½	2 75
Sal soda	95	97½	85
Soda ash, 48% carb	1 22½	1 22½	1 25
Soda ash, 48% caustic	1 22½	1 20	1 20
Soda ash, 48-58% N. C.	1 22½	1 10	1 25
Soda alkali, 58% B. M.	1 12½	1 20	1 20
Soda nitrate	2 12½	1 82½	2 05
Brimstone	$20 00	$20 00	21 00
Cream tartar	32	34¼	34¼
Muriate of potash	1 80	1 70	1 67½
Chlorate of potash	14½	15¼	16¼
Kainit	9 50	7 25	6 90
PAINTS.			
White lead in oil	5⅛	6¼	7
Litharge	5⅛	5⅝	5¼
Paris green	18¾	18	16
Orange mineral	8	7¾	8
Ven. red, English	1 40	1 40	1 40
Ven. red, American	1 00	1 00	1 00
Barytes	$16 00	$16 00	$18 50
Whiting, Commercial	45	45	35
DRUGS.			
Opium	$2 70	$4 40	$2 75
Morphine, domestic	2 10	3 10	1 80
Quinine, German	33	38	48
Quinine, domestic	43	40	50
Cinchonidia, domestic	8	8	8
Alcohol	2 20	2 03	2 12
Borax, city	8½	6¼	6¼
Beans, tonka (Ang)	1 30	1 35	1 55
Cubebs	1 50	1 00	75
Cuttlefish	21½	19¾	12¾
Glycerine, American	16½	19¼	15½
Oil, castor, city	14	17	17
Oil, codliver, Nor	22 50	27 00	25 00
Quicksilver	56	53	48¼
Oil, bergamot	2 30	2 37½	2 00
Oil, cassia	70	85	62½
Oil, cubebs	14 00	10 00	8 00
Oil, peppermint, tins	1 95	2 00	2 75
Oil, sassafras	60	43	35
Aloes, cape	5¾	5¾	7
Asafœtida	8½	9	11¼
Gum arabic, 1st picked	84½	92½	82½
Gum arabic, sorts	52	57½	39
Camphor	24	22¾	21
Shellac, D C	21	19½	18
Senna, Alex. Nat'l	24	29	27½
Senega So	52	27	52
Golden Seal root	13	18	13
Ipecac	1 75	1 25	82½
Canary seed, Smyrna	2½	2¼	2⅜
Caraway seed, Dutch	5¾	6½	7
Coriander, English	4½	5	5
Mustardseed, Cal. yel	3½	4½	5¾
Mustards'd, Trieste, br	5½	7	5½
Rapeseed, English	3	4	4½
Rapeseed, German	3½	3¼	4
OILS.			
Linseed, domestic	53	46	43
Cottonseed, prime S. Y	48½	40	40
Olive, Sicily	68	68	77
Cocoanut, Ceylon	5½	4⅝	5½
Lard, prime city	70	54	57½
Menhaden, prime cde	25	20	21½
Whale, bleached win'r	42	40	41
Sperm, bleached win'r	72	71	85
Paraffine, 25 gravity	10½	8	9
Black, 29 gr. 15°	8½	8	7½
Oil cake, western	23 00	21 75	52 50
Spirits turpentine	37	32¼	34½
DYESTUFFS.			
Cochineal, Teneriffe S.	30	30	30
Cutch	6½	7¾	6½
Gambier	6¾	5½	4⅝
Indigo, Bengal h grade	1 25	1 25	1 45
Bichromate potash	10½	10½	9⅞
Prussiate potash, yel	19	19	19
Sumac, Sicily prime	57 00	70 00	27 00
Starch, west'n corn bls	2⅞	3¾	3⅜

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consisting of tabular leaflets, odorless, or faintly saline bitterish taste, melting at 127° C. [260·6 F]; sparingly soluble both in hot and in cold water, but very easily so in alcohol.

As might have been presumed from its chemical constitution, so closel parallel to that of phen-acetin, it appears that meth-acetin has, in experiment and practice, developed physiological properties quite similar to those of its parallel compound.

The antiseptic qualities of Meth-acetin are demonstrated by its one per cent solution arresting the decomposition of milk and preventing the ammoniacal fermentation of urine.—*Merck's Bulletin for July.*

Salt Production Abroad.*

BY P. L. SIMMONDS.

In Cheshire, natural brine is found at a depth of 120 feet to 150 feet from the surface, or is obtained by flooding oil rock salt mines. There the rain water easily finds its way to the salt, which it readily dissolves, and the brine runs for miles on the surface of the rock salt, or "salt-head" as it is called, and it is only necessary to sink a shaft this short distance to obtain the natural brine. On the Tees the condition is altogether different in two essential points, There is no natural brine, and the rock salt is about ten times the depth. The rock immediately overlaying the salt are impervious to the water contained in such quantities in the sandstone above the marls, and from which the brine is artificially produced

The quantity of saline matter contained in the springs at Droitwich is about 45 parts in 100. The supply of this valuable fluid seems inexhaustible; its strength and quality have been for centuries the same. With the present works it is estimated that 260,000 tons of salt are annually manufactured from the Droitwich brine.

In a paper by Mr. T. W. Stewart, read before the Society of Chemical Industry in October last, some interesting details were given on the rapid development of the salt industry on the Tees, which has been such an important boon to the alkali manufacturers of that district. The bed of rock salt discovered at Middlesborough has been found to exist over an area rather more than four miles long by two and three-quarters broad, or about twelve sqnare miles, and allowing for its known unequal thickness, each square mile is estimatep to contain 100,000,000 tons of salt.

The consumption of common salt on the Tyne in 1887 was 116,486 tons, and the local production 136,000 tons, so that this is in excess of the consumption by the alkali manufacturers in the district.

Mr. Stuart states that "the fineness or otherwise of the grain in the different varieties of salt depends simply upon the temperature at which the brine is kept during evaporation. The higher the temperature the finer the grain, and the lower the temperature the larger is the crystal. The different kinds of salt are divided into boiled and unboiled. The fine grained salts, such as butter, cheese, block and domestic salts, are made in short pans of about 35 feet long, and kept at 224° Fahr., the boiling point of saturated brine, the pans being drawn twice daily. Block salt is made by filling this salt into wooden moulds, and drying in stoves by the waste heat from the pans, while superfine salt is produced by grinding these boiled salts. Unboiled salts, such as common and fishery, are produced at temperatures below the boiling point of brine. For common salt the brine is kept at about 160° to 190° Fahr., and the pans drawn every two days, whereas for the larger grained or fishery salt the brine is evaporated at about 130° to 160° Fahr., and the pans drawn every four or five days, extra fishery working at 100° to 110° Fahr. Large grained bay salt is worked at 75° to 80° Fahr., and drawn every three or four days."

Heavy excise duties were for a long time imposed upon salt; they were first levied in the reign of William III. In 1790 the salt duty amounted to 5s. a bushel, subsequently increased in 1805 to 10s., and in 1806 to 15s. a bushel, and then lowered to 2s. The average annual home consumption until the duty was removed in 1825, was, according to the Excise, about 2,000,000 bushels, or 50,000 tons. Perhaps no tax was ever more unpopular than the salt tax. In addition to the quantity that paid duty for home consumption, a large amount was supplied duty free for exportation, for the fisheries, for Ireland, and for bleaching and it was principally from this source that smugglers obtained the salt for carrying on an extensive contraband trade.

Rock salt is almost exclusively exported, a very small portion being retained for home use. In the time of the duty it was only charged on export with a penny a bushel. The total quantity of salt, white and rock, accounted for by the Excise tables, entered for home consumption, and exported in the year 1821, just previous to the remission of the duty, amounted to 12,526,297 bushels, which at 56 lbs. a bushel, was equivalent to about 313,159 tons. In many countries much salt is made by evaporating sea water.

The composition of sea water varies with the latitude and locality. The sodium chloride increases in the equatorial seas, and diminishes in the polar seas. It is a singular fact that when sea water is frozen, the ice formed is perfectly free from salt, water rejecting the saline ingredients in the act of crystallizing. The solution becomes more and more concentrated, and, consequently, it requires a greater degree of cold to form the ice.

The quantity of salt, or muriate of soda, varies in different seas, but the mean is about 2¾ per cent. Under the line, or at the equator, the water will be found to contain 1-37th salt, near Iceland 1-12th, about the Norwegian coasts 1-10th, near the Spanish coasts 1-48th part.

In Sweden, Russia, and other northern countries, salt is sometimes obtained by freezing the sea water in large reservoirs. The ice thus formed consists of pure water; the mother liquor, therefore, by repeated congelation becomes more and more impregnated with salt, and can be profitably boiled down. The salt thus obtained is, however, far from pure.

Having dealt generally with salt, and its production and consumption in this kingdom, I shall now pass on to notice its production and commerce in Europe, America, and other parts of the world.

France.—The consumption of salt in France might be made the history of the "Gabelle" which sent thousands of peasants to the galleys. From 1830 to 1849 the annual consumption per head was only 10 or 12 lbs; upon the reduction of the duty, the quantity consumed rose to 18 lbs. in 1846, with an average consumption of 12 lbs., the amount of duty was nearly £2,750,000 sterling, or about two francs per head.

In 1885, the tax on salt brought into the Customs £850,240., and the indirect tax, or that out of the range of the Customs, £485,240., together 1,335,480. This was besides that levied on imported salt.

Table salt is furnished in France by the mines in the departments of Meurthe et Moselle and Doubs, and by the salt works carried on in the Bouches-du-Rhone and on the borders of the ocean, principally at the Lake of Re, the Landes, Charente-Inferieure, and Loire-Inferieure. The production of the salines, is very variable, hence a fluctuation in price. On the average 100 kilos (2 cwt.) cost 2½ frs., to which has to be added 12½ frs. for tax, bringing up the price to 15 frs. for table salt.

*Read before the Society of Arts.

Musambra, a Variety of East Indian Aloes.

BY DAVID HOOPER.

Writers on Indian materia medica have described in their works an impure aloes called Musambra, said to be made in India. In looking through vernacular lists of drugs of the present day, the word musambra, or some other form of it, is seen to be applied generally to aloes, whether imported into India or not, and it will be seen from the following list that the appellation is not restricted to any one part of the peninsula: Mussabar, musabbar (Hindustani); musanbar, moosumbir (Dukhni); moshabbar (Bengali); mussbar, sibar (Kashmiri); musambara-bolla (Mahratti); mushambarum, moosumbrum (Telugu); musambra (Canarese). The Telugu name is that used on the Madras railway, a line running between Madras and Calicut.

The name, speaking with etymological accuracy, is a compound of *mur* and *sibr*, the Arabic names for the two drugs myrrh and aloes. I cannot find, however, that such a compound exists as an article of commerce. It might be difficult to detect the admixture of a small quantity of myrrh in aloes, but any considerable quantity would increase the amount of resins present and interfere with the odor. The samples of musambra examined in my laboratory were free from the addition of any myrrh, and this seems to be the usual experience. Under the head of "Aloes," in the catalogue of the Calcutta Exhibition, it is stated that this drug, "combined with myrrh, constitutes the musambar of Bombay," but I have not been able to obtain a sample. Dr. Dymock says the term musanbra is incorrectly used for aloes, which must be true in many parts of India; but as the name has been known for at least a century in Mysore, and as a sample found in that country is different from hitherto described varieties of Indian aloes, it seems to be a subject worth investigating.

Ainslie, in "Materia Indica," Pt. 1, p. 10, says: "There is a coarse kind of aloe called musambrum, common in the bazaars, which is prepared perhaps in India from this species (A. perfoliata, Linn.). * * * This species of the plant is common in India, though I cannot learn for certain that any of the drug is prepared from it."

J. J. Wood, in the revised edition of "Materia Indica," published in Madras, 1871, gives a note as follows: "Aloes met with in the bazaars, as prepared in the provinces, is variable in quality, usually inferior, being darker in color than the other kinds, extremely bitter, and having a nauseous taste."

Kanny Loll Dey, in "Indigenous Drugs of India," has a paragraph to the following effect: "The bitter inspissated juice (of A. Indica) constitutes the medicinal aloes musubber of the bazaar."

Dr. Kirkpatrick, of Mysore, some twenty years ago compiled a "List of Asiatic Medicines Used by the Hakeems, with Uses and Doses," giving in each case the Canarese and English names of the drugs. Under the name of Moosamber he describes the properties and doses of aloes, without giving a description of the drug or its botanical origin.

Dr. O'Shaughnessy in "Bengal Dispensatory," under the article "Aloes Indica, Royle," says it is "probably the source of some of the common aloes (musabbir) of the bazaars," which is "black, brittle, of semi-vitreous fracture, and too impure for medical use."

Most of the above authorities designate the most impure kind of Indian aloes as musambra, but not one of them speaks with certainty of its local manufacture from the plant.

The classification of Indian aloes was attempted by O'Shaughnessy and Pereira, and a reference to the varieties distinguished by the names of the countries whence they were obtained, will be of interest in comparing them with our present knowledge of the drug. O'Shaughnessy mentions three kinds, as follows:

Socotrine, imported, 82 per cent soluble in water.

Kurachi, nearly black, opaque, rather vascular, shelly structure of fracture, faint smell, powder blackish. It is identical with the better kinds of musbaber of the Bengal bazaars. Water dissolves 52 per cent.

Dekkan, deep brown, of earthy and slightly resinous fracture, faint odor, powder brown. Soluble in water in the proportion of 98 per cent.

Dr. Pereira ("Materia Medica," vol. ii., p. 193) describes six kinds of aloes in India:—

Kurachi, nearly black, opaque.

Dekkan, deep brown.

North India, dull black, brittle, little odor.

Guzerat, dark, more gummy, more difficult to fracture.

Salem, in blackish masses with numerous large air cavities, odor of socotrine.

Trichinopoly, resembling Cape aloes.

Dr. Dymock, in 1881, discovered the source of an aloes prepared in Jafferabad. It occurs in cakes of a black color and pitch-like luster. The Kurachi aloes previously described might now perhaps be referred to Jafferabad aloes, and the Salem aloes of Dr. Pereira to Musambra. The socotrine aloes as imported might account for some of the other varieties known as "Indian."

The specimen of aloes known as Musambra, and bought by the author two years ago in Bangalore, has the following characters: It occurs in thick cylindrical pieces of ½ lb. to 1 lb. or more. The color is black, and liver colored in places where it is broken or rubbed. It breaks or crumbles up into small angular fragments, not into laminæ or splinters, as in other kinds of aloes. It is distinctly porous, and small stones and other impurities are seen to be imbedded in its substances. The odor is agreeably aromatic. The powder is dull umber brown. When moistened and examined under the microscope the crystals of aloin only slowly make their appearance, which would imply that there was a smaller quantity than usual of the active principle.

A proximate analysis of the drug gave the following result:

Water extract	53·8
Resin soluble in acetic acid	10·4
Resin insoluble in acetic acid	8·5
Insoluble in proof spirit	1·9
Mineral impurities	21·8
Moisture	3·6
	100·0

The drug responded to the general tests for aloes. Borntrager's test = a rose color. Cripps' and Dymond's test = deep orange red. Ditto with ammonia = claret. Nitric acid in the cold = deep red. Nitric acid vapor passed over some of the powder mixed with sulphuric acid gave no blue color. The last two tests are characteristic of Barbadoes aloes.

Some plants of the Mysore aloes were obtained from Mr. J. Cameron, of the Lal Bagh, Bangalore, about two years ago, and were planted out in the Botanic Gardens, Ootacamund, for the purpose of flowering them for identification, but the elevation and cold were unfavorable to the growth. Last year, during a tour through Travancore, an aloe similar to the Mysore plant was found to be very abundant, and to be used by the natives in medicine. Flowers, fruits and leaves were brought back and submitted to Mr. Lawson, the Madras government botanist, who with very little hesitation referred them to Aloe vulgaris, Lamark, the figure of which is represented in Bentley and Trimen's "Medicinal Plants," plate 282. The A. indica and A. litoralis, mentioned in the Pharmacopœia of India, as has been suggested before, might be placed under the denomination of A. vulgaris, a plant which seems to be well established, at least in Southern India. A. vulgaris affords the Barbadoes aloes of commerce, which gives peculiar reactions with nitric acid and its vapor. The Mysore aloes, in giving similar reactions, confirms to some extent the evidence of its being made in the country from a plant which is so abundant. If the imported article should ever become scarce the natives will not be backward in manufacturing the drug for themselves, if, indeed, this is not already done. The aloes plant is not a true native of India, and the introduced A. vulgaris is not at present recognized in modern works of materia medica of this country, but considering its easy growth and the extensive uses to which it is put by the natives in medicine, it will shortly have to take up an official position with other indigenous drugs.—*Pharm. Journ. and Trans.*

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The prices current will be found on page 50.

TUESDAY EVENING, Sept. 3, 1889.

The tone of the chemical market continues to improve, so far as the heavy goods are concerned, and although there has been no quotable change in prices, a very firm feeling exists, and higher figures are indicated as a probability of the near future. In the general market there is little news to report, the general features being about the same as when we last wrote. Regarding the Liverpool market for heavy chemicals, our correspondents, Messrs. J. P. Brunner & Co., say, under date of August 21st: "All round there is a better feeling in chemicals, and buyers show more disposition to operate. There is quite an active inquiry for soda ash at the moment, principally for 48% caustic ash, of which a considerable quantity has been placed on private terms. We quote: caustic ash 48% 15-16@1 1-16d; high test, 31-32@1 1-32; carb ash 48% 31-32@1 1-16 and high test 31-32@1 1-32d; Soda crystals being still in limited compass are firm at £2 19s; in some cases 2s 6d more money is demanded. Caustic soda is scarce, and on this account it is held for full prices. In 60% business has been done at £5 17s 6d up to £6, and nothing is now offering at under the higher figure. 70% is rather dearer at £6 17s 6d to £7, and not easy to buy at the lower price, 74% is quoted at £7 10s, and it is difficult to find anything for prompt delivery. For 76%, £8@8 5s are the quotations, and business has been done at the higher figure for small lots. Bleaching powder has also improved, and for America £7 has been paid, while there is very little to be had for this month. Chlorate of potash is only in moderate request, and prices are irregular, ranging from 4½@5d, according to position of sellers. Bicarb soda keeps firm at £4 12s 6d@4 15s per ton, for one cwt. kegs, according to brand and quantity, with usual allowances for larger packages."

Heavy Chemicals.

Carbonated soda ash 48% is still attracting attention, particularly for future delivery, though business is of moderate volume as yet, probably because of the uncertainty regarding the resumption of operations by the glass factories. Prices are firmly maintained and there is nothing pressing on the market. We repeat our quotations of 1 22½@1 25c for large lots according to seller, position, etc., 1 27½@1 32½c for jobbing quantities from store.

Caustic soda ash, 48%, is selling quite freely, buyers showing considerable anxiety to secure supplies for future requirements, in expectation of future scarcity and higher prices. For spot goods, most holders, ideas are about 1 25c, though possibly 1 22½c would not be refused on a large order. For arrival there is very little offering, and business is doing at 1 20c; sales of 100 tons, to arrive, being reported at that figure.

Alkali is firmer and unchanged. For B. M there is an active demand principally for forward delivery. Stocks are closely absorbed, the deliveries on contract being heavy and in excess of last year's business at this time. We continue to quote 1 20@1 22½c for 48% as to quantity and position but 58% is not now procurable below 1 15c and not much is to be had at that. In 36% there is little or no business to report and prices remain nominally as last quoted.

Caustic soda is very scarce on the spot, and there is very little procurable for arrival. There is a good deal of inquiry for forward delivery, but there is not much actual business as yet, though from present indications dealers look for an active buying movement in the near future, particularly if the manufacturers' agreement to restrict production on the basis of salt decomposition goes into effect this month as expected. Nothing new has been heard here regarding the proposed combination, but it is generally believed that it will be completed at the next meeting of the manufacturers. The tone of the market is, in consequence, very firm and most holders want 2 22½@2 25c for either 70 or 74% in a large way, though in one or two instances 2 20c is still quoted for stock to arrive or from dock. Sixty per cent does not perceptibly feel the improvement in other tests, the demand for it being limited. The market, however, is steady at 2 45@2 47½c for large lots and 2 62½@2 75c for jobbing quantities.

English sal soda continues to improve and it is doubtful if anything could be purchased to arrive at less than 95c, while for spot goods 97½@1c represents the range of quotations as to quantity and seller. There is more inquiry but little actual increase in business as yet. American sal soda is firm and sells well for the season.

Bleaching powder although not urged for sale with the freedom noted a week or two ago, is not very firm and while the nominal quotations, as to quantity and seller, are 1 75@1 85c, we understand that some holders are willing to accept 1 72½c on large orders. Buyers show little interest and the market closes dull. The consumption appears to be steadily diminishing.

Acids.

Acetic acid has sold in a small jobbing way at our former asking rates, but nothing of an important nature has transpired to affect the market.

Muriatic and nitric acids have continued in fair request at previous quotations and dealers are moderately satisfied with the volume of business doing.

Sulphuric Acid—A fairly satisfactory business is reported at the new figures and the market is rather improved as to position. The only feature of interest is the meeting of the acid manufacturers which will be held to-morrow (Wednesday) at the Fulton Club. Important business will, without doubt, be transacted should the attendance warrant it, and this seems, by all indications, to be assured.

Tartaric acid has ruled featureless during the week, with buyers' wants moderate and for jobbing parcels entirely.

Oxalic acid has sold in the usual manner, with values identical with a week ago, and the market bare of items of interest.

Miscellaneous.

Acetate of Lime—Is not in a very promising position at the moment, the trading being exceedingly limited, while prices are ruling low. We hear of offers to supply brown at 90c, but this figure does not tempt buyers.

Blue Vitriol has been taken in the regular way for consumption, and though the market is by no means active, sellers seem reasonably satisfied with the condition of affairs. No change in values can be noted.

Brimstone seems about to awaken from the lethargy into which it had fallen, the market being rather improved in position, though no actual advance in values has been effected.

Recent advices from Sicily report the article in a better position, and quote higher figures, due in part to increased freight charges, but also to an advance in the article itself, owing to the fact that stocks in that quarter were on July 1, 30,000 tons less than last year. It is said that it would now cost $30 to lay stocks down here.

Nitrate of Soda—Owing to the loss of a cargo (reported in our news columns) the market has steadied somewhat, spot prices being firm at $1 85@1 90 according to quantity. Sales aggregating say 2,000 bags are reported at quotations.

Cream Tartar—The current business has been of fair proportions, but the market has ruled entirely without feature, and no further cutting has been indulged in.

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Silica,	0.08	"
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The general market for fertilizing chemicals has ruled steady, and the trading, considering the season, has given dealers no special cause for complaint. Phosphate rock has again been advanced to $6 for undried and $7 for dried, for prime goods, although it is reported that some inferior grades are offering at lower figures.

Muriate of potash has been in light request, the market having ruled wholly without interest, with prices unchanged.

Double manure salts have been contracted for in the regular way, at our former quotations. The old stock of high grade sulphate of potash has about dwindled down to a minimum, and the new stock is not obtainable under $2.50 what remain of the old goods are held at $2 35@2 40.

Kainit—There has been some business doing in a small way for delivery at the stipulated prices, but nothing of any moment has transpired to effect the market or disturb prices.

Philadelphia Chemical Market.

PHILADELPHIA, Sept. 2, 1889.

There is very little of interest to report in the English chemical market of the past week. Prices are firm as a rule at last week's quotations, the exceptions being in holders favor. The arrivals are limited and but few goods remain on dock to be disposed of.

Carbonated soda ash, Liverpool, 48%, is meeting with considerable inquiry, although sales are limited, owing to the uncertainty of starting the blast. On spot, 1 30@1 37½c is named, and to arrive and for shipments, 1 27½@1 35c will buy as to quantity and brand. 58% is unchanged, with stocks light and holders firm. Caustic soda ash, 48%, has arrived freely, and can be had from dock at 1 32½@1 40c; shipments are held at 1 27½@1 32½c. Caustic soda is in fair demand and light stocks reported. 60% is held firmly at 2 60@2 70c on spot, and shipments are quoted at 2 55@2 65c, and possibly on offer 2 52½c might buy a round lot. 70% is scarce on spot and held at 2 32½@2 37½c. To arrive and for shipments, 2 22½@2 30c is named. 74% has been in better demand recently, and resulting in the closing out of nearly all spot lots. To arrive, 2 30@2 40c are the asking figures, which might be shaded on offer. Sal soda is in limited supply, and from store is quoted at 1@1 10c and shipments are held at 90@95c. To arrive 95@1 00c will buy.

Refined alkali solvay 36% from store can be bought at 1 27½@1 35c and to arrive 1 17½@1 23½c is named.

B. M. 48% is in moderate supply notwithstanding the recent arrivals most of which were placed on contract. Spot goods are held at 1 27½@1 35c and shipments at 1 25@1 30c. B. M. 58% from second hands can be had at 1 27½@1 35c, and to arrive and for shipments 1 22½@1 27½c is asked.

Bleaching powders are fairly active and with a limited supply on spot holders are firm at 1 85@1 97½c, as to brand. To arrive 1 80@1 90c is named. Nitrate of soda is quoted at 2 10@2 25c from store and shipments are held at 1 85@2c.

The Trade in Ink.

Ink is a word derived from the Latin word *enc'austum*, which the Romans applied to the purple-red ink used by the later of their emperors. The common black gummy mixture in common use among them was called *atramentam*, from their verb *atratus*, to make black. Every liquid or pigment used for writing or printing is embraced by this generic word ink, although their varieties are very numerous.

Writing ink might simply be described as colored fluids for writing, were it not that they require to possess the special characteristics of brilliance, permanence, and some degree of instructability, combined with perfect fluidity, to suit them for that purpose They may be made of any color by using a strong decoction of the colors employed for dyeing, mixed with a little alum and gum arabic. By far the most important of them all are the black inks, of which there are many varities, which may, however be all classed under those of writing, China and printing inks. After these, red and blue are the most commonly used, and the only ones generally employed in the counting house. All others may be considered as fancy inks, used chiefly for ornamental purposes. Apart from color,

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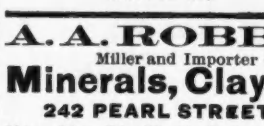

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there are several qualities which characterize certain inks for special applications, such as copying inks, linen-marking, indelible, sympathetic inks, and others.

China ink is the ink universally used throughout the Chinese Empire for writing with a brush, or painting, on one side only of the paper in general use in China. It is rubbed down on a porcelain slab, or palette, and used with a fine camel-hair brush for painting upon the soft, smooth, flexible nice paper employed by chinese artists, and which is such a peculiarly characteristic product of those ingenious Orientals.

China ink, so far as is known, was the earliest artificial ink made, and it is still in general use in China and Japan. It has also been used in India so long as to have also obtained the name of Indian ink. In Europe it is employed to some extent by architects and engineers, and also by artists, who use it for designs or sketches in black and white, for which it possesses the advantage of affording various depths in shading according to its greater or less dilution with water. It is made of lampblack and size or animal glue, with the addition of perfumes or other substances not essential to its quality as an ink. It is prepared in the form generally of small sticks, which are formed in wooden moulds. The finer qualities are delicately perfumed and their upper surface ornamented with characteristic Chinese letters or signs in Dutch metal or gilt. The Japanese use for making it, a soot obtained from burning pine wood or rosin; or lampblack from sesamum oil for the finest qualities. This is mixed with liquid glue made from cuttings of ox-skin and scented with camphor, or a peculiar mixture of perfumes from China, with a small quantity of carthamin (a rose-red extract of safflower) to improve its color. The pure article can only be obtained from China. Its price differs much according to quality and the finest are rather costly; but a good imitation can be and is largely made in Europe with ivory-black ground to an impalpable powder, and made into a paste with weak gum arabic and perfumed with a few drops of the essence of musk and half as much of ambergris, and then moulded into sticks or cakes. It can also be made of lampblack, which being a fine charcoal powder is much used in painting. Lampblack is obtained in quantity by letting the dense smoke of burning pitch or rosin into chambers in which sacking is suspended, on which it settles, or in chambers lined with leather, from which it is more easily collected. Lampblack can be readily got in small quantities by holding a cold plate over a gaslight or lighted lamp, from which method its name originated. This, mixed with clean size got by boiling shreds of parchment or undyed glove leather, will make an ink as good as that from China, but without its perfume.

Sepia ink is a natural ink, and the most ancient of all known inks in the world. It is obtained in a state ready for use from the ink bag of the Sepia or cuttlefish, which, long ages ago, ere man appeared on the earth, was in constant use by those swarming cephalopods, in the liassic and later seas, for discoloring the water surrounding them, with its brown ink, and so facilitating their escape from their enemies. This mollusc was used by the Spartans for making their black broth, and the sepia from its ink bag was largely employed in ancient times, and was that used by the Egyptians for writing the inscriptions on their sarcophagi. Dr. Wollaston, until he was made acquainted with its source, was greatly puzzled by finding animal matter in this ink.

Artificial writing ink is of so great antiquity that both the name of its inventor and the date of its invention are alike unknown.

The common writing ink of the ancients was essentially different from that now used. Its basis was powdered charcoal mixed with some mucilaginous fluid, which formed an ink somewhat resembling printing ink. Its color was less liable to fade than many modern writing inks, and judging from the writing on many specimens of papyri, the ink of the ancient Egyptians was of very superior quality. The initial letters were written with red ink, made with vermilion (sulphide of mercury). Mr. Lane, the celebrated Orientalist says that the ink of the modern Egyptians is thick and gummy, like the common ink of the ancients, mentioned by many classical authors.

Pliny says that the Roman ink, atramentum, was made of soot in various ways from burnt resin or pitch, and to obtain it, he adds, they build furnaces which do not allow the smoke to escape. Some ink was made, however, by boiling and straining the lees of wine. He further observed that an infusion of wormwood in ink preserves writings from mice. On the whole, it is certain that many inks of the ancients were more durable than those now generally in use. They were thicker and more unctuous, and their charcoal coloring more permanent. An inkstand discovered in the ruins of Herculaneum contained ink as thick as oil, and still usable for writing. The gummy character of ancient ink preventing its free flow to the point of the pen, was as much complained of by Roman writers as by some writers now with much less reason.

Writing ink now differs entirely from that of the ancients, as it is not, like theirs, a mere mechanical mixture, but a chemical compound. Its essential ingredients are three: First, tannin-yielding substances, of which Aleppo or Chinese nutgalls—the latter requiring the addition of yeast—are almost the only eligible materials; second, a salt of iron, the ferro-sulphate (green copperas) being alone employed; third, a gummy or mucilaginous agent, such as gum Senegal or gum Arabic, to keep in suspension the insoluble tinctorial matter of the ink, and for other purposes.

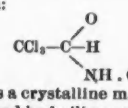
C. H. Vieldt, of Brunswick, who has written very exhaustively on all kinds of ink, divides the black writing ink into three varieties, viz., "galls inks," ditto with logwood, and ditto with indigo. The best quality of these is, chemically, a ferroso-ferric gallate, or tanno-gallate of iron. It is made by mixing, according to one maker, for twelve gallons of ink:—

12 lbs. of bruised blue Aleppo galls.
5 lbs. of sulphate of iron (green copperas).
5 lbs. of gum Senegal,

dissolved in 12 gallons of water.—*Oil and Colorman's Journal.*

Chloral-Urethane and Uralium.

Chloral-urethane is the product of simple addition of one molecule each of chloral (not hydrate) and ethylic urethane (common urethane). Hence, it is represented by the formula:



It is a crystalline mass, insoluble in cold water, and by boiling water decomposed into its two parent components. Alcohol and ether both dissolve it readily; water separates it again from these solutions. It melts at about 103° C. [217 F.] after, however, partially decomposing from 100° C. [212 F.] upward.

Chloral-urethane was first systematically investigated in regard to its therapeutic properties, parallelly with ethylidene-urethane and methylic urethane, by Hubner and Sticker (*Deutsche Medizinische Wochenschrift*, 1886, No. 14, p. 236). The last named two compounds were found to be totally inert in doses of 1—4 grams [15—16 grains]; while the chloral-urethane was found to produce hypnotic effects, similar to those of ethylic urethane, although less certain and less persistent. In some cases it appeared also to give sedative effects; for instance, in ulcus ventriculi.

Mairet and Combemale ("Note sur l'action physiologique du chloral-urethane": *Montpellier med.*, 1886, p. 149) reported, about the same time, on an extended series of animal experiments with chloral-urethane. Their principal conclusion was, that the toxic effect outweighs the hypnotic in prominence and importance of symptoms. The sleep that had been induced by the medicament was invariably attended by a paralysis of the hinder parts; large doses (from 40 parts per 100,000 of the animal's weight), in dogs, caused diarrhea, profuse diuresis and salivation, difficult respiration, slight disturbances of compensation, itching of the skin and nose, but no sleep.

Uralium, accoreing to Gustavo Poppi's report to the Societa Medico-chirurgica di Bo-

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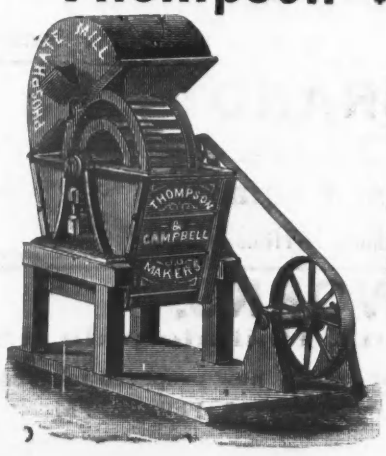

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logna, is a new Hypnotic, discovered by him. This compound is here discussed in connection with Chloral-Urethane, because, according to Poppi (*Riforma Medica*, 1888; No. 81) it is likewise a combination of urethane with chloral, and possesses the same quantitative chemical composition as chloral-urethane!

Uralium appears in crystals of bitterish taste, which are readily soluble in alcohol—less so in water. The melting point has not been determined as yet.

Doses of 80—90 parts per 100,000 of the animal's weight, in dogs, always induced sleep, commencing after 1—2 hours and lasting 5—10 hours. The animals bear the uralium better than chloral hydrate, because the former medicament does not reduce the temperature so much, and also produces no disturbance in the general tone.

Human experiments were instituted by Poppi first on his own person. He took 1—2 grammes [15—30 grains] of uralium in the evening—experiencing, in consequence, an increased frequency of the pulse (up to 75 or 80), somnolency, and a sensation of debility. The sleep thus induced did not last longer than the ordinary sleep; on awaking, the experimenter felt but a slight, transitory lassitude.

Thereafter, the investigator tried the effects of uralium on numerous clinical patients—embracing cases of alcoholism, phthisis, heart disease, insanity, and nerve ailments. The experiments proved that uralium, in doses of 2—3 grammes [30—45 grains] produced calm, enduring sleep. In otherwise healthy individuals, suffering only from insomnia, the blood pressure is not affected. This is a decided advantage possessed by uralium over chloral hydrate, and which, in addition to its cheapness, well deserves consideration.

Although the analytical formulas of uralium and of chloral-urethane are reported to be absolutely identical, and hence the view of the identity of these preparations seem to be supported—still, the differing physiological results of the investigations by Poppi and by Mairet-Combemale speak for the assumption that they are two different compounds!—Hence, it will be well to await further reports on uralium, which shall convey clear perception of its chemical constitution.—*Merck's Bulletin* for July.

Sewage Disposal: The Great National Puzzle Solved.

BY WILLIAM BURNS, C. E.

We have now shown how sewage can be thoroughly purified by means of hydrochloric acid, and when conducted in conjunction with other manufacturing processes it can be made a good profitable concern, but it may be objected that the plant is too expensive and complicated for small towns to undertake, especially towns that are distant from manufacturing and commercial cities. It is true there are towns where the necessary raw materials are difficult to be got at, and where the products of the sewage manufactory would be difficult to dispose of. To meet such cases we would recommend another process for purifying sewage, especially in rural districts where wood or peat is more plentiful than coal.

We have found by numerous experiments that pyroligneous acid is the next best purifying agent known to us for depurating sewage, and other foul liquids. The pyroligneous acid vapors should be injected into the sewage direct from the decomposing retort, and then neutralized by lime and clay, and the supernatent water should be filtered, The creosote contained in the pyroligneous acid is a powerful antiseptic, and prevents the decomposition of the albumen gelatine and other animal substances contained in sewage, and the acetic acid has an oxidizing action on putrid matters, and prevent putrifactive fermentation setting in. 24 cubic feet of wood will produce sufficient acid to thoroughly deodorize and preserve 100,000 gallons of sewage from decomposition.

Sewage treated with pyroligneous acid is a great deal more valuable for irrigation than raw sewage, the acid converts the ammonia and potash in the sewage into acetate of ammonia and potash, which are more valuable than sulphate or muriate of ammonia as fertizers, the acetate of ammonia is more easily and rapidly assimilated by vegetation, than ammonia in any other form or combination, growing plants feed on acetic acid, while they reject sulphuric and muriatic acids, the roots of plants decompose the acetate of ammonia readily, and absorb the nitrogen of the ammonia and carbon from the acid, while the hydrogen and oxygen unite and form water. The acetate of lime again is also decomposed by plant roots, they assimilate the carbon of the acid, and liberate the hydrogen and oxygen which again unite and form water, the lime being left in the soil. While some plants obtain the greater portion of their carbon from the air in its gaseous form as carbonic acid, other plants obtain the greater portion of their carbon from its combinations in the liquid form in the soil, through the medium of their roots.

When we bear in mind these facts, it must be evident that, when nitrogen as a plant food is presented to the growing plant, in union with carbon contained in acetic acid, which is also food of plants, it must be more nutritive than when nitrogen is presented in union with sulphuric acid, which is not plant food. In the one case the plant obtains both nitrogen and carbon direct from acetate of ammonia, whereas in the other case the plant gets nitrogen only from the sulphate of ammonia, and has to search for carbon from some other source. The pyroligneous acid is also valuable for destroying larvæ and grubs. Therefore we would recommend farmers who use sewage for irrigation, to insist on having it deodorised with pyroligneous acid before it is delivered on to the farm.

For the purpose of manufacturing pyroligneous acid, peat, wood sawdust, spent-tan, spent dye woods are all available as well as wood. The residual charcoal and tar, after the acid has been distilled off, would be a source of profit.

Let us take the sewage of a small town of, say, 5,000 inhabitants, producing on an average 150,000 gallons of sewage in 24 hours, which is required to be purified by the pyroligneous acid process. The permanent works and plant for such a town would cost £2,400, and a working capital of £1,000 to meet daily expenditure, making a total capital of £3,400. Then we estimate the accounts would stand something like the following, supposing we borrowed the £2,400 for permanent works and plant:

DAILY EXPENDITURE FOR PURIFYING 150,000 GALLONS OF SEWAGE PER DAY OF 24 HOURS.

	£	s.	d.
Interest on £2,400 at 5 per cent.	0	6	6
Wood, 36 cubic feet, at 3d.	0	9	0
Chalk, 1½ tons, at 5s.	0	7	6
Lime, 2 cwt., at 6d.	0	1	0
Clay, 10 cwt., at 3s. per ton	0	1	6
Small coals, 1 ton, at 8s. 6d. per ton	0	8	6
Salt, 5 cwt., at 1s.	0	5	0
Peroxide of iron, 2 cwt., at 1s. 6d.	0	3	0
Labor and contingencies	3	10	0
Total daily expenditure	5	12	0

DAILY RECEIPTS.

	£	s.	d.
Cement, 1 ton, at 30s.	1	10	0
Muriate of ammonia, 1½ cwt., at 20s.	1	10	0
Alkali, 4 cwt., at 10s.	2	0	0
Oil, 2½ barrels, at 10s.	1	5	0
Charcoal, ½ chaldron, at 30s.	0	15	0
	7	0	0
Expenditure	5	12	0
Total daily profit	1	8	0

Allowing 300 working days a year, he have a profit of £420 after paying 5 per cent. on the borrowed capital for permanent works, which gives 17½ per cent. on the total capital of £3,400, that is equal to 42 per cent. on the working capital after paying 5 per cent. on borrowed capital.

From the above statement it would appear that even small towns could purify their sewage, and manipulate the residual products from the process of purification in a manner that would return a considerable profit on the manufacture.

The size of a town ought to be no hindrance to the purification of sewage. The sewage of any town from the smallest up to the largest city in the kingdom can be equally well purified and manipulated so as to return a profit on the process without causing the slightest nuisance anywhere.

Let us take a town of, say, 10,000 inhabitants and see what might be done with it by converting it into a model sanitary town.

First, then, we must supply the inhabitants with a sufficient quantity of pure water for domestic purposes only, at the rate of about 10 or 15 gallons per head per day, the water to be delivered direct from the mains without the intervention of cisterns. The domestic supply ought not to be connected in any way with water closets or sinks. Then we must have a second supply of water for flushing water closets and drains, and for watering the streets and gardens; that supply ought to be at least 20 gallons per head per day of the population, but need not be perfectly pure. That, along with the rainfall, would give an average of about 30 gallons per head per day of sewage, and, suppose it to be delivered all at one point convenient for carriage. We would then purify the sewage, and use the purified sewage water for flushing the water closets, drains and sewers, and also for watering the streets and gardens of the town. Any surplus water could be run into the nearest stream without fear of causing a nuisance.

The town ought to be supplied with good, pure illuminating gas and a public abattoir. The gas works and abattoir ought to be situated in a convenient place near the outfall sewage works, so that the liquor from the gas works and the blood from slaughter houses, could be easily and separately drained and delivered at the outfall sewage works to be dealt with there in connection with the sewage. The water works, sewage works, gas works and abattoir ought all to belong to one corporation who could manipulate the various refuse substances and residual products from the different works all at one place and carry on the purification under one management. Now, let us suppose that such a town is thoroughly well drained and supplied with gas and that we are bound to purify the sewage in such a manner as not to cause a nuisance anywhere.

In such a case we would have to provide—1, Works for the purification and utilization of 30,000 gallons of sewage per day containing 2 tons 10 cwt. of organic matters; 2, works for utilizing the refuse of the abattoir producing on an average 10 cwt. of blood and viscera contents daily; 3, works for utilizing 160 gallons of gas liquor and 140 gallons of tar from the gas works per day. Permanent works and plant for such a purpose would cost about £40,000, and a working capital of £10,000 to meet the daily expenditure would have to be provided, making a total capital of £50,000. Then the account of the expenditure and receipts would be something like the following estimate:

Daily expenditure and receipts in purifying and utilizing the sewage, slaughterhouse refuse, gas tar and ammoniacal liquor of a town of 10,000 inhabitants.

EXPENDITURE.

	£	s.	d.
Salt, 20 tons, at £1	20	0	0
Pyrites, 1½ tons, at £2 6s.	1	19	0
Chalk, 40 tons, at 5s.	10	0	0
Clay, 6 tons, at 3s	0	18	0
Coal dust, 10 tons, at 5s	2	10	0
Small coal, 20 tons, at 8s.	8	0	0
Fire wood, ½ cord	1	10	0
Sawdust, 12 sacks, at 2s.	1	4	0
Wages and management	20	0	0
Tear and wear of plant	2	10	0
Total daily expenditure	68	11	0

RECEIPTS.

	£	s.	d.
Hydraulic cement, 12 tons, at £1 10s.	18	0	0
Hydrochloride of ammonia, 1 tn, a £20.	20	0	0
Sulphate of ammonia, 4 cwt., at 10s	2	0	0
Alkali, 16 tons, at £10	160	0	0
Oil, 44 barrels, at 10s.	22	0	0
Total daily receipts	222	0	0
Deduct expenditure	68	11	0
	153	9	0
Deduct lordship on five patents	38	7	0
Total daily receipts	115	2	0

Allowing 300 working days a year that would give a yearly profit of £34 530, which is equal to 69 per cent. per annum on the total capital of £50,000. According to the above estimate we would have works capable of purifying 300,000 gallons of sewage in 24 hours, and utilizing the slaughterhouse refuse, ammoniacal liquor and tar from the gas works of a town containig a population of 10,000 inhabitants, returning a profit of 69 per cent. on the capital employed, a sum quite sufficient to meet all necessary expenses for lighting, water supply, highways and improvements.

In such a town there would be no necessity for imposing any rates. It may be asked, how we can account for the great difference in the profits to be obtained from a town of 10, 00 and that of 5,000 inhabitants as shown by our own estimate. We must observe that in the foregoing estimate for a town of 5,000 inhabitants we have supposed the town to be situated in a rural district where it was desirable to minimise the cost for permanent works to such a sum as would return a fair profit on a small capital without any risk of loss. Whereas in our estimate of a town of 10,000 inhabitants, we have taken in the gas and slaughterhouse refuse, and propose to use a much larger capital for manufacturing purposes, such chemical manufactories cannot be so profitably carried on with a small capital on a small scale, as with a large capital on a large scale.

The above described works, with a very slight addition, could be made to produce a much greater profit by additional manufactures such as artificial manures and depurating carbon, which could be carried on at a small additional cost, and would increase the whole manufactures taken together to cent. per cent. per annum.

For that purpose we would establish a collecting brigade to perambulate the town regularly and collect all the bones, woolen rags, old boots and shoes, shoe makers' leather parings, &c., by that means the town would be kept clean of animal refuse matters. The old leather and woolen rags would be dissolved by the new process, and made into a valuable manure. The bones would be used in manufacturing depurating and decolorizing carbon. Part of the depurating carbon could be used on the works with advantage in purifying the sewage, and the remainder could be sold for deodorizing cesspools, privies, foul liquids and gases in villages and other places where there were no regular sanitary works.

The depurating carbon has a very powerful effect in deodorizing and oxidizing foul matters and the decolorizing charcoal has a more powerful effect in decolorizing syrups than bone charcoal, therefore it would be of great value to sugar refiners.

Depurating carbon, when properly manufactured and calcined at a sufficiently high heat, is eight times more powerful as a deodorizer and purifier than either wood or peat charcoal that is to say, one measure of depurating carbon will deodorize and deficate the same quantity of sewage or other foul liquid, that eight measures of wood or peat charcoal could do, and, in addition, it has oxidizing and purifying properties that wood or peat charcoal do not possess.

When depurating charcoal is spread over dead animals or animal matter it causes a very rapid oxidation and prevents the escape of odorous gases and vapors. As a filtering medium for foul waters nothing hitherto tried can equal it. When the depurating carbon is ground to a powder and mixed with foul sewage in the proportion of about from 2 to 10 pounds to 1,000 gallons, according to the strength of the sewage, it instantly deodorizes the sewage and causes a rapid precipitation of the solid matters held in suspension, it also precipitates the whole of the phosphoric acid and absorbs the greater portion of the ammonia and potash held in solution. No other form of carbon, at present known, acts in such a powerful manner on sewage, nor is there any single purifying substance known to us equal to it as a purifying agent for sewage.

The following is the formula for manufacturing the depurating carbon for purifying sewage and other foul liquids and gases:

	Percentages.
Ground chalk or limestone parts by weight	18
Ground clay or limestone parts by weight	6
Ground coal or limestone parts by weight	12
Wood sawdust or limestone parts by weight	20
Animal dung or limestone parts by weight	40
Animal blood or limestone parts by weight	3½
Iron borings or limestone parts by weight	0½
	100

The chalk and clay should be dried and ground to a fine powder, and thoroughly incorporated with the sawdust and ground coal. The animal dung, blood and iron turnings should be thoroughly mixed together, and then added to the above dry powder, and thoroughly incorporated therewith and made into a stiff dough, then formed into bricks or convenient clods or lumps for drying. The dried lumps should then be submitted to destructive distillation at low temperature under high pressure, then calcined at a high temperature under low pressure. the charred lumps should then be ground to a fine powder for use.

The dung of either horses, cows or sheep answer the purpose for forming the magma, or a mixture of all the three. Hardwood makes the best sawdust for the purpose, but the sawdust of pine woods answer the purpose very well. Ground peat or spent tan may be substituted for wood sawdust. The finer the iron turnings are the better do they answer, 100 tons of dried lumps when calcined will produce about 36 tons of depurating charcoal. In making decolorizing carbon, blood should be substituted for the iron turnings, and only one-half of the above quantity of chalk and clay should be used, and an equal quantity of ground bones substituted, so that the following would be the formula for decolorizing carbon:

	Parts by weight.
Ground chalk	9
" clay	3
" bones	12
" coal	12
Wood sawdust	20
Animal dung	40
" blood	4
	100

Chemists have never been able to cause nitrogen and hydrogen to unite when mixed in a direct manner to form ammonia. It has been tried to form ammonia by passing steam and air through red hot coke contained in a retort, with the expectation that the steam would be decomposed, and the oxygen uniting with the coke, and the hydrogen with the nitrogen of the air in the retort, would form ammonia, but it did not succeed. Any little ammonia that was obtained was from the nitrogen contained in the coke. When the mixtures, which we have described above for making depurating carbon, are distilled in an accumulating retort under high pressure, union is effected between the hydrogen from the steam and the nascent carbonic acid discharged from the chalk and the nitrogen of the air contained in the retort, the combination forming carbonate and bicarbonate of ammonia.

No union takes place between hydrogen and nitrogen in the retort unless the mixture contains either carbonate of lime, soda or potash. Caustic lime, soda or potash does not cause the hydrogen and nitrogen in the retort to unite, but when hydrogen disunites from steam and carbonic acid from lime at the same instant of time in an atmosphere of nitrogen under pressure, the three gases unite to form carbonate and bicarbonate of ammonia. Again, when coal or shale is distilled in a close retort, part of the nitrogen of the coal or shale is discharged and unites with the hydrogen of the coal and forms ammonia, and another part of nitrogen escapes in the gaseous state along with other gases uncombined, another part of the nitrogen remains in union with the coke. If we add caustic lime or soda to the coals or shale in the retort it will cause a further union to take place between that part of the nitrogen which would otherwise have escaped as a free gas uncombined, still a large percentage of uncombined nitrogen would escape: but if we mix the coal with carbonate of lime, soda or potash, the carbonic acid will cause the whole of the nitrogen which escapes from the coal or shale to unite and form carbonate and bicarbonate of ammonia. This is a very important discovery, because it enables us to increase, very much, the manufacture of ammonia from the distillation of sewage sludge, and makes the purification of sewage a good commercial undertaking that would prove satisfactory to all concerned.—*Invention.*

DYE MARKET

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Sept. 3, 1889.

The general market for dyes and dyestuffs shows no material change from a week ago. The wants of buyers have continued moderate, and have been supplied without any inconvenience to dealers. The uneasy feeling reported in our last, which has been caused by the recent failures in the east, has continued to exist, but in the absence of any further disasters the market would appear to be steadying a little. Prices show no important alteration.

Aniline colors have sold in the usual jobbing way at former rates, but we are unable to note a single transaction of any magnitude or to record anything of an interesting nature.

Alizarine.—A steady tone is evidenced in the giving of prices, but in the matter of trading, the market continues quiet, with little of interest transpiring. No change in previous quotations has been effected.

Albumen has ruled rather quiet during the week, being held steady, however, at previous rates.

Bichromate of Potash.—The business at hand has been entirely of a jobbing character, no large orders having been placed. Prices have been steady, no fluctuations being noted, while the market has ruled entirely without feature.

Cochineal has sold in a small way only, an occasional jobbing sale constituting the business doing. Values, in the absence of any incentive to alter them, have not been changed.

Cutch—Nothing of any moment has transpired in the market for this article, and the trading has been confined to small jobbing proportions, some 500 bales having been placed in this manner, since our previous report, at 5½c, which figures represents the prices for parcels on spot.

Divi Divi continues in full supply, but only light request, no sales of any importance having been consummated since our previous report. Values are unchanged but are ruling nominal.

Dyewoods—Importers continue to quote logwood with firmness and shows no signs of weakening. Sales are reported of 180 tons. Gonaives at $34, one cargo Pt au Prince, sold at p. t. (said to $31) and one cargo St Marc, about 350 tons, t go to Philadelphia at p. t. said to be $32 h re, which will make it cost about $33 50 before being delivered. It is said that an offer of $30 for all the wood on dock has been refused and sellers are reported as saying that after September 2d at least $1 to $3 per ton will be added to present prices, buyers are looking around and it is expected that all the stock now on hand will be cleared off in the near future. All wood in sight or that to arrive within the next 30 days has been placed. The prospects for increased arrivals are said to be very poor, as the course of the market abroad has been such as to warrant the shipment of stocks to that quarter, in preference to this port. Extracts continue in a depressed condition, but little trading having been accomplished during the interval. Prices are still easy and nominal.

Gambier continues exceedingly steady with the trading very fair, sales aggregating 400 to 500 bales spot, being given us at 7¼c. To arrive there has been transactions to the extent of some 400 tons at 6¾@7c, according to position.

Indigo—There has been rather an improvement noted in the demand, but no special transactions are reported. Messrs. Howe, Balch & Co. announce that owing to an error in the transmission of a cable word, the estimate of the new crop in the Behar district was reported as 69,255 maunds, instead of 60,000 maunds, the latter being the proper figures. Prices have ruled steady, but are unchanged. Guatamalas are practically a "dead letter" in the market, but as this is what as known as the off season, the fact excites no comment. Manillas are said to be relatively higher at the port of production than here, the demand from Japan having kept prices up. The stock here is fair, however, as is also the trading. There has been no low grade Madras made up this season, the medium and finer qualities having occupied the attention of the producers entirely. Prices for all grades are quoted with steadiness.

Nutgalls—It is said that the present spot prices of China galls are below what it would actually cost to lay down stocks here, but the limited demand will not permit holders to advance prices, the lots available in the market being those which have been here some time, and which were received, when prices were lower abroad. Values are ruling steady, but show no actual change. Aleppo galls are a trifle steadier than at the date of our last report, but in the absence of any special demand the market has ruled without interest at former figures.

Prussiate of potesh—The several grades have sold moderately in the customary manner, but the market has ruled entirely without faeture, while prices show no change.

Sumac. Sales are reported in a jobbing way but no feature of interest can be noted, prices being quoted steady at former rates. Ther has been an increase in the demand for old lots, of Virginia owing to the lateness of the arrival of the new crop, and were supplies available on spot, undoubtedly higher prices could be realized. We are given sales of 25 tons at a figure equal to about $47.50 laid down here.

Starch.—The manufacturers are now mainly engaged in watching the result of the potato crop, which is said to have been badly damaged by the extended season of wet weather.

No accurate or definite information has as yet come to hand, however. The demand has been rather slow for all kinds, while prices are identical with a week ago.

Tin crystals have continued in fair request, being quoted at former figures, with an absence of interesting items noted.

Canaigre as a Substitute for Gambier.

BY HENRY TRIMBLE.

The following account of a tanning material, which has several times in the past few years been mentioned as new, or as a possibility for the tanner, is undertaken with a view of relating what has been done toward developing this source, and at the same time calling attention to the fact that, if we encourage home production, we have in canaigre a material which gives promise of superceding the much adulterated gambier.

Canaigre is found in large quantity in the sandy soil on both sides of the Rio Grande and northward over a large portion of Western Texas and New Mexico.

Its history is briefly as follows: It is said to have been used in tanning by the Mexicans for over two centuries. Our first information, however, dates from July 9, 1868, when a package of these roots were forwarded for Mr. John James, of San Antonio, Tex., to the Agricultural Department at Washington, together with a letter stating that Mr. F. Kalteyer, a chemist, in San Antonio, had found them to contain thiry-two per cent. of tannin

This sample was mislayed or overlooked until 1878, when it was reported on by the chemist. This same sample was then found to yield 23·45 per cent. of tannin. A fresh sample was also procured and the tannin estimated in the still fresh root with almost identical result, after making due allowance for difference in moisture. The other constituents reported at that time need not claim our attention at present, further than to notice a considerable quantity of starch, 18·00 per cent.

Previous to this publication by the Government, Mr. Rudolph Voelcker, of Galveston,

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Tex., published an analysis of roots gathered in July, 1874. He found 23·16 per cent. tannin, and proved the presence of chrysophanic acid and aporetin. He was not aware of the botanical origin of the plant, but supposed it to belong to the natural order Polygonaceæ. In 1879, Mr. Wm. Saunders in his report on canaigre stated it was the Rumex hymenosepalum of Torrey, and furnished a lithographic plate of the plant in bloom.

At the New Orleans Exposition, 1885-86, in one corner of the section, devoted to products from New Mexico, were some of these roots, above which was the inscription, "A new tanning material."

It will be shown later that this exhibit, insignificant as it appeared, attracted the attention of at least one person.

In 1886 a sample of roots sent to me from San Antonio, Tex., under the name of "Indian root," was analyzed and the results published under the common name of "yerber del indio" from the impression it was the aristilochia fœtida of the Mexican Pharmacopœia. This impression, however, was corrected by Prof. J. M. Maisch in the same issue, page 115. He suggested, and it has since been found to be correct, that this "raiz del indio" was the canaigre root.

That analysis fixed the amount of tannin at 11·66 per cent., but it was found that the root, which was not analyzed as soon as received, had commenced to decay and later it was completely riddled by insects. In this respect my experience differed from that of the Government chemist, who found no change after ten years.

Soon after the New Orleans Exposition, samples of two or three hundred pounds were sent to Chicago for experiments in a number of tanneries there. Mr. E. C. Denig, of that city devoted much time since then to studying this material, from its source in Texas to its application in the tanning of hides.

Canaigre consists of heavy globular and fusiform pieces, from two to six inches long and one to three inches in diameter. Externally it is of a dark reddish-brown color, becoming, by age, almost black. Internally it is from a bright to a brownish-yellow, according to age and amount of exposure to the atmosphere. When collected, the roots consist of clusters, resembling sweet potatoes. They are found near the surface or sometimes on top of the groud, are rapidly dried and at a certain stage cut into small pieces. If allowed to get very dry, they become so hard as to resist any ordinary method of cutting.

From samples of the whole and chipped root, kindly furnished me by Mr. Denig, I have found 17·33 per cent. of tannin. This figure is rather lower than that obtained by other investigators, but the deficiency may be explained by my sample containing more moisture. Dr. H. E. Schucke has found a total of 28·57 per cent. tannin.

The ground root is at present used in a number of tanneries, and has been found more closely to resemble gambier in its action than any other tanning material. An extract has also been prepared and used, which contains from forty to sixty per cent. tannin, and it is thought, that in this form it will probably replace gambier.

Should the hopes and efforts of those who are engaged in the development of this material be realized, we will have a source of tannin which is said to be inexhaustible, and which will be the means either of bringing a better gambier into the market, or of driving it entirely out of use here. It is said that the dried and ground root can be delivered in any part of the United States at a price not exceeding three cents per pound. Thus, after a delay of twenty years, this root has reached that stage of practical application when a useful future may be predicted for it, and the persistent efforts of the past four years have every prospect of being rewarded. The presence of so much starch in a tanning material is, perhaps, without precedent, and there are good reasons why this is no disadvantage.

The properties of the pure tannin have not been investigated, and it is not known whether carnaigre red or gallic acid is the product of its decomposition. Crystals have been obtained by agitating an aqueos extract of the root with ether, which do not resemble either gallic acid or catechin. This crystalline compound and the pure tannin are under investigation by me at the present time.—*Jour. Franklin Institute.*

409,668. PURIFYING ALUMINUM CHLORIDES. Issued Aug. 27, 1889.

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Capt. Jacob Jay Vandergrift.

There are some men so constituted and endowed by nature, that they seem born to lead. Without presumption and without the use of power they come inevitably into the foremost rank and take their place as leaders. The force of circumstances, the exigencies of life, the vicissitudes of fortune are but their servants. By an inherent faculty, a native capability and apparently exhaustless personal resources they make fortune and misfortune, vicissitude and circumstance bend and contribute to the end they have in view. Such a man is the subject of this sketch.

Jacob Jay Vandergrift was born in Pittsburg, Pa., April 10, 1827. He was the second child and the oldest son of William K. Vandergrift and Sophia Carver, and as his grandparents were natives of the State it is pure Pennsylvania blood that flows in his veins. His early life was spent in Pittsburg and the scenes of his earliest childhood are now the very centre of the business enterprises which are under the control of his matured manhood and his capable hand. After a year of preliminary instruction, at the age of 7 years, he entered the public school of the Second ward, the first opened in Pittsburg, presided over by the successful and highly respected principal, Mr. James B. D. Meeds. Leaving the public school at the age of 13 he spent two years more under the teaching of "'Squire" Thomas Steele, whose bright face and delicate figure were once so prominent in political circles in Western Pennsylvania. Whatever else the Captain may have learned from these nine years of teaching, he at least formed the habit of acquiring information and putting it to the most practical use, as his whole life proves. At the age of fifteen, choosing the path of life which opened before him naturally, he went into the steamboat service which was at that time the channel of traffic between Pittsburg and the West. So faithfully did he discharge his duty and so intelligently did he apply himself to his new calling that in ten years he had advanced from cabin boy to captain. During this time he executed the plan by which the towing of coal barges was completely revolutionized and a new impulse given to the business. From 1852, for ten years he followed the fortunes of his chosen work, and left it after having the steamers under his control transferred to the new business of transporting oil in bulk barges from the Venango oil field to Pittsburg.

When, in the early days of the war, Captain Vandergrift saw his first oil venture in West Virginia laid waste by the Confederate arms, it probably did not occur to him that he was yet to make his fortune and develop his business abilities in the very trade which had begun so inauspiciously. But such has been the case. Whatever may be said regarding the uncertain character, the ephemeral nature and the mysterious chances and changes of the oil business, it nevertheless remains true that no other single industry which has enriched the State of Pennsylvania, has ever afforded such splendid scope for genuine business faculty, nor brought to the front men, whose talents, overruling the exigencies of chanceful venture, have made themselves rich and added millions to the wealth of the State. It will be found, upon honest examination, that the almost incredible development of the oil and natural gas industries is due, not so much to a generous and yielding earth and the constant chances of unexpected riches, as to the rare genius, the keen insight, the wise economy and the indomitable energy of the men who have made the oil trade and the oil country famous and necessary the world over. Among such men there is certainly no one who stands in advance of Captain Vandergrift, and perhaps more than any other man he has been identified with and instrumental in the development of every branch of the trade and every industry incident to it. Through his interest and enterprise in the transportation of oil from the Venango field to Pittsburg, by the river, Captain Vandergrift became directly interested in the oil country and the production of oil. He removed his family from Pittsburg and took up his residence in Oil City in 1863. From that time until the present he has not followed, but led the fortunes of the oil country, and his change of residence from Oil City to Pittsburg in 1881 only served to deepen his interest and enlarge the sphere of his usefulness in advancing the industries with which he is so prominently identified. In the earliest history of the oil country Captain Vandergrift was for a short time engaged in the formation of oil companies for the development of territory and the production of oil. But the immediate work of the "producer" had attractions for him that soon led him into advanced enterprises which met sometimes with success and sometimes with partial or conditioned failure. In the special work of producing petroleum he was an active member of the firm of H. L. Taylor & Co., out of which there finally developed the Union Oil Company. As a member of the firms of Vandergrift & Foreman, Vandergrift, Pitcairn & Co., and Vandegrift, Young & Co., his knowledge of the business, united with his irrepressible energy, led finally to the organization of the Forest Oil Company, of which he is president, and which has always held a foremost place among the large and successful oil companies. He also organized and is president of the United Oil and Gas Trust and the Washington Oil Company. The names of these companies and the success with which they have met bear an unqualified tribute to the peculiar ability and skilful spirit which Captain Vandergrift has contributed to their promotion and development, for, as is well known, the various companies with which he is connected either as president or director are engaged in producing the most elusive and delusive of all the world's staples, upon the soundest business principles and by the most systematic and economical methods.

As is well known to every thoughtful man, the great problem of modern commerce in America is not production, but transportation, and while an enterprising and successful producer it was really left for Captain Vandergrift, if not to solve, at least to develop the solution of the problem of the transportation of oil. To whoever may belong the laurel for having conceived the idea of a pipe line, history records that the idea first was executed in 1865 by an operator named Van Siekel, who built a line six miles in length. Shortly after this the Oil City and Pithole railroad, being in the hands of a receiver, who was Mr. George V. Foreman, a partner of Captain Vandergrift, they built and equipped a line of tank cars and to secure business constructed a successful pipe line from West Pithole to the famous and infamous Pithole, and this was really the beginning of that revolution in the transportation of oil which has resulted in the present complete and wonderful institution known as the National Transit Company. The development of the "lower oil country" opened a new field for the pipe line business, and with Captain Vandergrift as the leading spirit a large number of lines in Venango, Armstrong, Butler and Clarion counties were constructed, and were finally united and known as the United Pipe Lines of Vandergrift, Foreman & Co. In 1877 these lines, with others, were consolidated and incorporated. Under the presidency of Capt. Vandergrift the United Pipe lines became almost the sole receiver of oil throughout the "lower," "middle," and "upper" oil fields, and the development of the idea and its almost universal application throughout the entire field has afforded unequaled facility to the general producer and a source of profit and great advantage to the general oil trade. To Capt. Vandergrift's business integrity and his wise forethought are due, not only the complete development of this mode of transportation, but the open and honest methods by which it has been conducted. Throughout its entire history the Captain was president of the United Pipe lines, and later of the United Pipe lines division of the National Transit Company, which position he has only recently resigned. There is always room for more and new work and enterprise in a truly active life, and with all the care of his producing interests and pipe line projects, the subject of this sketch projected the Imperial refinery at Oil City. This refinery was the largest enterprise of its kind ever attempted in the oil country, and with its modern and complete equipment, its improved machinery and a daily capacity of two thousand barrels, it was carried on successfully until it was sold to the Standard Oil Company. By this sale Captain Vandergrift became a stockholder in the Standard Oil Company, and was until recently an officer of the company. The quiet and prosperous village of Siverlyville, which has grown up about the Imperial, attests the wisdom and forethought of its original promoter.

The manufacturing interests which are incident to the oil business have received a due share of Captain Vandergrift's attention, as is evident from the present successful condition of the Oil City Boiler Works, the Pennsylvania Tube Works and the Apollo Iron & Steel Company, to either the planting or developing of which he has given his ability and experience.

Naturally enough, any one thus interested in a special product and its industries must of necessity be identified with its finance. Captain Vandergrift founded the Oil City Trust Company of Oil City, which is to-day one of the most prosperous and successful banking institutions in Western Pennsylvania. He also founded the Keystone Bank of Pittsburg, until which time he was a director of the Allegheny National Bank of Pittsburg. He was active in promoting the Seaboard Bank of New York city, and is at present one of its directors, and he was a director of the Argyle Savings Bank of Petrolia, Pennsylvania, during its brief but brilliant history. At the formation of the present Oil Exchange of Oil City he became a large stockholder, merely to aid the enterprise.

His vigorous and manly action, by which the Pittsburg Oil Exchange found itself in its present magnificent quarters and on a firm and sound financial and business basis, is so well known that it hardly needs mention. Indeed, there are scores of connections with the business enterprises of the oil country which cannot be even referred to here, that would be of unquestioned local interest. When the first joint of a six-inch pipe line was laid at a natural gas well at Saxonburg, and the last joint poured its living flame into the furnaces of Graff, Bennett & Company's, and Sprang, Chalfant & Company's iron mills at Etna, near Pittsburg, nobody dreamed that Capt. Vandergrift, who laid the line, had found the philosopher's stone for the iron industry of Western Pennsylvania. This has proved true, however. The line from Saxonburg to Etna was laid in 1875, but even previous to this natural gas had been conveyed from Gas City to Oil City, but the carelessness of an ignorant workman had created a public fear which delayed the advantage of using the new fuel for years, but the work at the two mills mentioned resulted in success. Captain Vandergrift's removal to Pittsburgh led him to renew his efforts to bring natural gas into more general use as a fuel, and he became the active and incessant promoter of the great industry. Under his guidance and general direction the Pennsylvania Fuel Company, the Bridgewater Gas Company, the Natural Gas Company of West Virginia, the Chartiers Natural Gas Company, the United Oil and Gas Trust, the Toledo Natural Gas Company and the Fort Pitt Natural Gas Company were founded and incorporated and these splendid enterprises, representing millions of capital, give some idea of that transformation of the iron industries of Pennsylvania and Ohio which has opened a new era in that industry and challenged the attention of the world. Only in this brief and partial way can the enterprises in which the subject of this sketch has been and is now engaged, be referred to, as it is not intended to furnish a history of these most remarkable industries of Western Pennsylvania. It may be truly said, that with all her splendid history, with all her wealth of resources, with all her gigantic industries in coal and lumber and iron, it has been left for our state to be made famous the world over through the two products of petroleum and natural gas. To the enterprise of Western Pennsylvanians there have been left the development and application of these products which have not only made the state famous, but have added constantly increasing laurels to her fame and millions to her wealth. To no single man identified with the production and application of petroleum and natural gas is greater credit due than to Captain Vandergrift. It has frequently been said of him that he was a pioneer of these industries, but, after all, that is scant praise to one who was indeeed a pioneer with sufficient forethought to see the possibilities of his venture and sufficient courage to stand by those possibilities and follow his forethought to complete success. Captain Vandergrift was a pioneer and deserves all the laurels of a pioneer, and at the same time the story of his business life is but the history of the petroleum and natural gas industries. From the days of spring poles and bulk barges and "pond freshets," through all the rapid changes of the most remarkable industrial development the world has ever seen, until to-day, when thousands of derricks stand like ghosts in the moonlight, and thousands of miles of pipe lines cover the ground like spider webs, Captain Vandergrift has stood by and led the fortunes of the great oil industry. Never a day has his hand been off the wheel, and never an atom of his energy and ability has he begrudged to the favored and favoring pursuit of his life.

It is difficult to even think of the man apart from the life work which has brought so much well-earned and well-used wealth to himself and so much permanent prosperity and continued comfort to the world at large. Looking at the man himself, he is of medium height and of full figure. He makes you think that he means what he says, for his well shaped head and well marked face bear every evidence of honest determination, vital energy and decision of character and purpose. A gleam of deep hopefulness softens the look of determination in his eyes, and the always ready and hearty smile gives a calm to his energy and tells you that even his decision of character and purpose will avoid offence and hurtfulness. The touch of his hand, his genial face, his whole bearing impress you with the presence of a man and set the simplest and poorest at ease in his company. Captain Vandergrift never forgets.

The past scenes of his life are dear to him still, and many a time he beguiles the hours for his friends, and is himself beguiled from weariness, as he casts the lead of his memory into the stream of his life and dwells with pleasure upon the "old days on the river" when life flowed as quietly as the Ohio, or met the dangers incident to a high flood on the Mississippi.

He is never too busy to give a warm welcome and a cheery hour to an old comrade who shared the joys and trials of his boating days. Nor has he ever lost touch with men as men. Never has he felt the spirit that kills in too many successful men sympathy with the struggling or the unsuccessful. The trials and misfortunes of his own life, as well as its triumphs and successes, have been fountains of helpfulness, and many a cheering word and many a helpful hand does he give to those with whom he shared the past vicissitudes, and with whom he is ever ready to share the present blessings. With the conviction firmly rooted in his heart that wealth is the gift of God for high and noble use, he has never withheld his hand, and the public enterprises of religion and philanthrophy as well as the private necessities of poverty and misfortune, have always shared largely in his most generous and most ostentatious giving. In his private and social life, into the sacredness of which we may not here intrude, Captain Vandergrift is of the most genial and happy disposition, as hundreds of his friends can testify, and his home has always been a center of gladness and a source of joy. To look at the man and take the measure of his success reveals to us some of the characteristics and secrets of his life and career. His entire business life has been, marked by the strictest integrity and honesty of both principle and practice. Doubtful plans and purposes have had no place in his policy, but to the least details of business his integrity and honesty have always descended. His instinctive love of fair play has always made him mindful of the rights and privileges of other men and has helped him, at the same time, to recognize and reward talent in others, and this power to discover talent has not only contributed to his own success, but has opened the way to prosperity very many others. His friends are as dear to him as his own life, and many a man has found an unexpected door open before him, unlocked by the captain's cherished memory of some act of friendship in the past. Coupled with these most noble traits of manhood, he possesses a keen power of discernment and a large experimental knowledge of human nature. In addition to these qualities of heart and life, Captain Vandergrift has that mental grasp which foresees the possibilities and contingencies of his chosen business, takes in the details of every department of his work, and anticipates and meets contingency and possibility with matured and practical plans. Most of all, he has the courage of his convictions, and while he stands ever ready to yeld his own opinion to a clearer light, his courage has carried him forward to that complete success which has thus far crowned his busy, honorable life. It is not given to every man to follow his chosen path to wealth and prove himself even in that very path a public benefactor. But such has been Captain Vandergrift's experience. While yet in the vigor of life he gave his best energies and high talents to his business, and gladly shared the joys and profits of it with his friends and the needy. He still sees the triumph of his life's labor issue in the general good of the community and contribute to the comfort of mankind. The story of his life and labor is told wherever the flame of natural gas glows in the white heat of a furnace, wherever the yellow gleam of a petroleum lamp brightens and cheers a home.—Harrisburg *Telegram*.

An Unfortunate Indigo Enterprise.

The Indigo Company of London was formed in February, 1886, to make indigo in India by a patent belonging to Messrs. Geneste. The capital was divided into preferred and deferred, all the latter and £35,000 of the former going to the vendors. This left £75,000 of the preference capital to be subscribed by the public. Of this less than half, £31,035, was taken up, and several of those who had objected to allotment being made; but the directors persevered. The result has been that the preference shareholders have never received any dividend, but have been steadily paying assessments. Meantime the company has accumulated a deficit up to February last year of £11,070 which has now reached £16,019, while no provision has been made for writing off anything for the expired term of the patents. The report submitted on the 9th ult., at the annual meeting, had a great deal to say about the improvement in the company's business; but as the accounts still show a deficit, it is hard to see much cause for congratulation, says an exchange. The worst feature of all is that the rats are beginning to leave the sinking ship. No less than three of the directors have resigned in the past year, for one reason or another.

Chemicals and Drugs in Germany.

According to an abstract of the report of the Berlin Chamber of Commerce which appears in the *Chemist and Druggist*, the condition of the drug and chemical branches in that city during the year 1888 it is asserted that so far the only result of the incorporation of Hamburg into the German Customs Union has been a considerable increase in the Hamburg charges on the handling of merchandise, a perceptible decrease in the promptness with which goods are transhipped in that port, and the creation of competition of the Hamburg traders in the interior of Germany. The exceptionally low value of the Russian exchanges, the severe winter and consequent delay in the opening of river and sea communication, and the uncertainty of the political situations were the reasons that business during the first half of the year remained very unsatisfactory. Later on a remarkable increase in the export trade of drugs and chemicals became perceptible. On the whole the industrial combinations and conventions, the number of which is constantly growing, have not operated to the disadvantage of the industry. A striking feature in the drug trade is the growing popularity of certain American drugs, especially cascara sagrada, hydrastis, canadensis, and senega. The trade in German vegetable drugs, on the other hand, especially for export, is falling off seriously, and even prices at which the planters cease to have any profit fail to rehabilitate this branch of trade. The manufacture of chemical and pharmaceutical preparations has been very brisk, and is still rapidly growing.